

NAVAL POSTGRADUATE SCHOOL

Monterey, California



19990805 027

THESIS

**THE EFFECT OF IMPROVING QUALITY OF LIFE AND RETENTION
BY ELIMINATING PUBLIC/PRIVATE VENTURE OUT-OF-POCKET
HOUSING EXPENSES: THE DIFFERENTIAL LEASE PAYMENT
PROGRAM AT NAVAL STATION EVERETT, WA**

by

Christopher J. Bielik

June 1999

Thesis Advisor:
Associate Advisor:

Cary A. Simon
Donald R. Eaton

Approved for public release; distribution is unlimited.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE June 1999		3. REPORT TYPE AND DATES COVERED Master's Thesis	
4. TITLE AND SUBTITLE : The effect of improving quality of life and retention by eliminating public/private venture out-of-pocket housing expenses: the Differential Lease Payment program at Naval Station Everett, WA				5. FUNDING NUMBERS	
6. AUTHOR(S) Bielik, Christopher J.					
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.					
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.				12b. DISTRIBUTION CODE	
13. ABSTRACT (maximum 200 words) This thesis examines the potential impact of eliminating out-of-pocket housing expenses on the quality of life and retention decisions of Navy families living in public/private venture housing. The Differential Lease Payment (DLP) program, an experimental Department of Defense pilot project, is on the verge of implementation at Naval Station Everett, WA. The main research question and hypothesis is that removing out-of-pocket housing expenses will substantially improve quality of life and positively affect reenlistment decisions of the impacted military families. A written questionnaire was administered to 71 military members and spouses living at the Country Manor public/private venture housing complex, and 25 semi-structured interviews were conducted from the 71 person sample. The study revealed at the .01 level of confidence that eliminating out-of-pocket housing expenses will substantially improve quality of life and will likely have a positive effect on reenlistment decisions. A related finding is that eliminating out-of-pocket housing expenses, although important, is less important than improving retirement benefits in terms of motivating reenlistment decisions. Recommendations are to implement the DLP program as soon as possible; improve retirement benefits to maximize retention; and ensure measurement of customer (military family) satisfaction is integral to all future public/private ventures.					
14. SUBJECT TERMS Public/private venture				15. NUMBER OF PAGES 92	
				16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified		19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified		20. LIMITATION OF ABSTRACT UL

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std.

Approved for public release; distribution is unlimited

**THE EFFECT OF IMPROVING QUALITY OF LIFE AND RETENTION BY
ELIMINATING PUBLIC/PRIVATE VENTURE OUT-OF-POCKET HOUSING
EXPENSES: THE DIFFERENTIAL LEASE PAYMENT PROGRAM AT NAVAL
STATION EVERETT, WA**

Christopher J. Bielik
Commander, United States Naval Reserve
B.S., United States Naval Academy, 1982

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

**NAVAL POSTGRADUATE SCHOOL
June 1999**

Author:

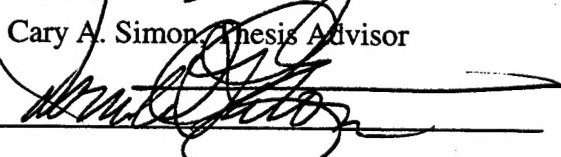


Christopher J. Bielik

Approved by:



Cary A. Simon, Thesis Advisor


Donald R. Eaton, Associate Advisor



Reuben T. Harris, Chairman
Department of Systems Management

ABSTRACT

This thesis examines the potential impact of eliminating out-of-pocket housing expenses on the quality of life and retention decisions of Navy families living in public/private venture housing. The Differential Lease Payment (DLP) program, an experimental Department of Defense pilot project, is on the verge of implementation at Naval Station Everett, WA. The main research question and hypothesis is that removing out-of-pocket housing expenses will substantially improve quality of life and positively affect reenlistment decisions of the impacted military families. A written questionnaire was administered to 71 military members and spouses living at the Country Manor public/private venture housing complex, and 25 semi-structured interviews were conducted from the 71 person sample. The study revealed at the .01 level of confidence that eliminating out-of-pocket housing expenses will substantially improve quality of life and will likely have a positive effect on reenlistment decisions. A related finding is that eliminating out-of-pocket housing expenses, although important, is less important than improving retirement benefits in terms of motivating reenlistment decisions. Recommendations are to implement the DLP program as soon as possible; improve retirement benefits to maximize retention; and ensure measurement of customer (military family) satisfaction is integral to all future public/private ventures.

TABLE OF CONTENTS

I. INTRODUCTION.....	1
A. BACKGROUND	1
B. PURPOSE.....	2
C. SCOPE AND METHODOLOGY.....	3
D. BENEFIT OF THE STUDY	3
E. ORGANIZATION OF THE THESIS	4
II. BACKGROUND ON MILITARY FAMILY HOUSING	5
A. MILITARY CONSTRUCTION	5
B. PUBLIC/PRIVATE VENTURES.....	7
1. Section 801 "Build-to-Lease" Program	7
2. Section 802 "Rental Guarantee" Program	7
a. Problems with Section 801 and 802 Programs.....	8
3. Title 10, "2667 Lease" Program.....	9
4. Title 10, U.S. Code Sections 2871-2885.....	10
C. THE DIFFERENTIAL LEASE PAYMENT (DLP) PROGRAM	12
D. CHAPTER SUMMARY	13
III. LITERATURE REVIEW	15
A. INTRODUCTION	15
B. MOTIVATION THEORY.....	16
1. Scientific Management.....	17
2. Human Relations Theory.....	17
3. Process Theory.....	23
4. Reward Theory.....	26
C. CHAPTER SUMMARY.....	28
IV. METHODOLOGY AND DATA ANALYSIS	31
A. INTRODUCTION	31
B. DESIGN OF THE STUDY.....	32
C. DATA COLLECTION	33
D. DATA ANALYSIS	34
E. CHAPTER SUMMARY	50
V. CONCLUSIONS AND RECOMMENDATIONS	53
A. QUALITY OF LIFE AND RETENTION	54
1. Conclusion	54
2. Recommendation.....	55
B. STRESS REDUCTION	55
1. Conclusion.....	55
2. Recommendation.....	56
3. Possible Impediment to Implementation	57
C. ADDITIONAL FINDINGS RELATED TO RETENTION DECISIONS	58
1. Conclusion.....	58
2. Recommendation.....	59
D. ADDITIONAL FACTOR AFFECTING QUALITY OF LIFE	60
1. Conclusion.....	60
2. Recommendations	62
E. COMPARISON WITH MOTIVATIONAL THEORY	64
F. AREAS OF FUTURE RESEARCH.....	65
APPENDIX A. Housing Information Questionnaire	69
APPENDIX B. Semi-structured Interview Summaries	73
LIST OF REFERENCES.....	77
INITIAL DISTRIBUTION LIST.....	79

LIST OF FIGURES

1. HERZBERG'S MOTIVATOR-HYGIENE THEORY (SZILAGY AND WALLACE, 1983).....	22
2. A BASIC EXPECTANCY THEORY MODEL (SZILAGY AND WALLACE, 1983)	25
3. FORMULA FOR GOODNESS OF FIT TEST	36
4. RESULTS OF QUESTION 1	37
5. RESULTS OF QUESTION 2	38
6. RESULTS OF QUESTION 3	38
7. RESULTS OF QUESTION 4	39
8. RESULTS OF QUESTION 5	40
9. RESULTS OF QUESTION 6	41
10. RESULTS OF QUESTION 7	42
11. RESULTS OF QUESTION 8	43
12. RESULTS OF QUESTION 9	44
13. RESULTS OF QUESTION 10	45

LIST OF TABLES

1. Country Manor Occupancy as of 29 March 1999.	33
2. Demographic Question 1	34
3. Demographic Questions 2-6 and 8	35
4. Results of Question 11	46
5. Results of Question 12	46

I. INTRODUCTION

A. BACKGROUND

This thesis examines the extent to which quality of life and retention decisions for military families living in public/private venture housing at Naval Station Everett, WA, would be improved if and when the Differential Lease Payment program is implemented there. Beginning with the Department of Defense (DoD)-wide freeze on military construction in 1990, senior leadership within DoD realized that limited funding to meet military family housing requirements would most likely continue (Desbrow, 1998). In an effort to make the maximum use of limited housing funds, program managers are trying to explore new and innovative approaches to alleviate military housing shortages and minimize housing expenses for military families. One approach is a public/private venture, or a partnership between the Federal Government and private companies or local or state governments involving the exchange of properties and/or services for money. An approach that is tied to a public/private venture is the Differential Lease Payment (DLP) program. The DLP program is designed to eliminate out-of-pocket housing expenses for military families residing in public/private venture housing. Out-of-pocket expenses are those expenses for rent and basic utilities (water, sewer, gas, oil, and electricity) which exceed the Basic Allowance for Housing (BAH) received by a military member.

A separate area of concern for senior DoD leaders is the need to attract, train, and retain the highest quality personnel for the all-volunteer armed forces. As defense budget dollars persistently tighten, it is imperative to make the best possible use of training

dollars by attempting to improve retention of experienced personnel. Retaining the most highly qualified personnel in the armed forces improves readiness and decreases the amount of training dollars necessary to constantly retrain replacements as experienced personnel leave the service.

The challenge for today's senior military leaders is to attempt to determine the factors that motivate these experienced service members to reenlist. One potentially revealing area to explore is the impact of improving quality of life on retention decisions. In fact, Secretary of Defense William Cohen is on record as saying "quality military housing is central to morale, retention, and therefore readiness" of the U.S. armed forces (Desbrow, 1998). Exploration of the linkage between the quality of life issues of housing costs and retention decisions of military families could provide valuable insights into the best ways to spend limited DoD resources.

B. PURPOSE

The purpose of this thesis is to examine the possible effects of eliminating out-of-pocket housing expenses on military families living in a public/private venture housing project at Naval Station Everett, WA. The purpose is to examine the extent to which quality of life and retention decisions are improved. Military families at Naval Station Everett are paying additional out-of-pocket expenses beyond their Basic Allowance for Housing (BAH). The study attempts to determine the impact of eliminating these out-of-pocket expenses through the use of the government subsidized Differential Lease Payment (DLP) program. The point of the study is to determine whether the proposed reduction in housing expenses will substantially improve quality of life and positively

impact retention decisions. The primary research question is: *What is the effect on retention and quality of life when out-of-pocket housing expenses are eliminated for military members living in public/private venture housing?*

C. SCOPE AND METHODOLOGY

The scope of this study examines the effects on quality of life and retention in the context of a Department of the Navy pilot program. Naval Station Everett is attempting to implement a new Differential Lease Payment (DLP) program designed to eliminate out-of-pocket expenses for military families living in public/private venture housing. This study will examine how the DLP program may influence service members' decisions to reenlist and improve their quality of life.

The primary method for answering the research question was through a researcher-developed written questionnaire and semi-structured interviews. The questionnaire was administered to 71 service members and spouses currently residing in Country Manor housing. Additionally, semi-structured interviews were conducted with 25 service members and spouses from this sample. The purpose of the interviews was to obtain qualitative insights into the quantitative data obtained from the questionnaires.

D. BENEFIT OF THE STUDY

This study will provide a better understanding of the impact of eliminating out-of-pocket housing expenses on the quality of life and retention decisions of service members occupying public/private venture housing. As public/private ventures continue to become more prevalent in the government housing sector, this analysis can have significant implications for assessing their status as a method of improving the quality of life of

service members, and whether or not such improvement translates into improved retention.

E. ORGANIZATION OF THE THESIS

The following chapters study the impact of eliminating out-of-pocket housing expenses on the quality of life and retention of military members living in public/private venture housing. Chapter II highlights relevant historical information in the development of public/private venture housing and the Differential Lease Payment (DLP) program. Chapter III presents an extensive literature review on various theories on motivation, to determine if they can effectively predict the impact of the DLP program on quality of life and retention. Chapter IV discusses the methodology used in the study and presents an analysis of the data collected. Chapter V discusses the conclusions of the study, recommendations, and potential areas for future research.

II. BACKGROUND

A. MILITARY CONSTRUCTION

At least since the 1990s, DoD housing policy has been that the local community is recognized as the principal source for housing military families (Desbrow, 1998).

However, when a need is identified, Military Construction (MILCON) has been the traditional means by which military family housing has been procured by the Department of Defense. When a service identifies a need for housing at a base, it is generally done because the surrounding community is unable to meet the housing requirement needs of the military personnel assigned to that base (Van Oss, 1990). Some of the reasons for this failure of the local housing market to provide acceptable housing for military members are the inability to meet specific DoD guidelines for price, size, and location (Desbrow, 1998). For example, in a high cost of living area, local rents plus utility costs might exceed the standard 20 percent above BAH target.

Once a need has been identified, funding for a MILCON project must be included in the requesting service's Program Objective Memorandum (POM). The POM covers not only the upcoming fiscal year, but also the following six years. If the MILCON project is critical, it can be included in the upcoming year's funding request; otherwise it can be deferred into one of the outlying six-year funding projections. Therefore, a MILCON project can take anywhere from four to ten years from initial identification of need until actual occupancy by military families. (Van Oss, 1990)

Many past examples of successful MILCON housing projects exist. In 1949, Congress authorized funding for construction of over 83,000 military family housing units under the Wherry Program. Additional need was identified, and in 1955 Congress funded the Capehart Program. It resulted in the construction of over 115,000 military family housing units by the end of 1962. Also, in 1962, then Secretary of Defense Robert McNamara centralized the administration of funding for MILCON housing in the Office of the Secretary of Defense. As a strong proponent of military family housing, he set in motion plans that resulted in an average of about 8,000 new military family homes constructed each year from the mid-1960s to the mid-1970s. (Wick, 1996)

However, as budgetary funding has decreased within DoD, the high cost of MILCON projects, combined with the high cost of maintaining these units once completed, have led senior leadership within the military and in Congress to seek additional means of meeting the military's need for adequate housing. In fact, it has been estimated in a Congressional Budget Office study on Military Family Housing in the United States (September 1993), that the cost to the military of building and maintaining MILCON military family housing is about 35 percent greater than the cost of paying military members to choose private sector housing. Still, especially among personnel in the lowest paygrades, complete reliance on the private housing market runs the risk of these service members being unable to afford local private housing.

Another consideration is that DoD is still using and maintaining much of housing constructed during the Wherry and Capehart programs, many of which are in dire need of refurbishment. Estimates are that about 200,000 units need at least some repair and

modernization work. Current Defense Secretary William Cohen has estimated that, using MILCON, it would take DoD "about 30 years, and as much as \$20 billion to revitalize its family housing," and that "attracting private capital to help speed this revitalization is imperative." (Desbrow, 1998)

B. PUBLIC/PRIVATE VENTURES

1. Section 801 "Build-to-Lease" Program

In 1984, DoD began experimenting with an alternative method of providing military family housing other than through MILCON funding. Congress passed legislation as part of the 1984 Military Construction Authorization Act, Section 801, which allowed the federal government to enter into public/private ventures with private developers. This provision authorized each service secretary to enter into leasing projects for housing built by private developers, either on or off base property, for a maximum of 20 years. Military families occupy the quarters rent free, just as in traditional MILCON housing, but the developer and not the government pays the costs of construction. If the units are built on government land, when the lease expires, the government may choose to extend the lease, purchase the units, or lease the land to the developer for their own use. If the units are built on private land, DoD does not have the option to renew the lease, though it retains the right to purchase the property at fair market value (Van Oss, 1990).

2. Section 802 "Rental Guarantee" Program

Congress also passed authorization for this program as part of the 1984 Military Construction Authorization Act. While similar to Section 801, it contained some key differences. The first difference was that contracts under this provision could last for a

maximum of 25 years, and were not renewable. Next, the government would guarantee to the developer that a minimum occupancy rate of 97 percent of the units would be maintained through the life of the contract. Lastly, and most importantly, unlike traditional military family housing, the military tenants would not forfeit their Basic Allowances for Housing upon assignment to these units. Instead, they would pay the developer a monthly rent based upon the prevailing market rates for comparable units in the local area (Van Oss, 1990).

a. Problems with Section 801 and 802 Programs

Both of these programs met with some success during the initial stages of their use. However, this situation changed in 1990 with the enactment of the Federal Credit Reform Act of 1990. This legislation required Federal agencies to "score" such leasing agreements. The process of "scoring" requires that budget authority in the total amount of the estimated obligation must be obligated upon the initial approval of the contract. In other words, a construction project estimated to take three years to build must have all of its funding obligated prior to breaking ground on the project, rather than spread over the life of the project. Scoring did not just affect housing projects, it impacted every DoD purchase decision, including ships, aircraft, research and development, etc. These procurements were seen as being more vital to the military's core competencies, and were less likely to be cancelled through scoring than military family housing. Thus, in a competition for scarce resources, housing lost out to these higher priority procurements. This scoring requirement effectively ended the usefulness of both Section 801 and 802

programs, since the services could not afford to make such large up-front obligations of funds for individual construction projects (Desbrow, 1998).

3. Title 10, "2667 Lease" Program

While the legislation of Title 10, U.S. Code Section 2667 has existed for a number of years, its use in construction of housing units for military families has been extremely limited. Under the provisions of this section, private developers build housing for the federal government as in both 801 and 802 type contracts. However, some significant differences between 2667 and those programs exist. First, construction is not required to meet DoD specifications, only local building codes, which are generally less restrictive and therefore less costly than DoD specifications. This difference allows for significant potential cost-savings. Further, these projects fall outside the requirements of the Davis-Bacon Wage Act, which requires standard wages set by the Department of Labor be used to pay construction workers on government projects. Developers are free to pay their workers the prevailing local wage rates, which are estimated to further lower construction costs by five to fifteen percent (Van Oss, 1990).

Another key difference with 2667 projects is that service Secretaries are allowed to use non-excess federal land for the construction site. This provision allows much greater flexibility in choosing the site of the proposed construction project. Finally, lease periods for the units are set at a minimum of five years, however there is no maximum specified duration, allowing for the local installation commanders more flexibility in meeting their potential needs. While this program has not been used extensively by DoD,

one extremely successful example of a 2667 project is the Sun Bay Apartment and Resort complex built on the site of the former Fort Ord, CA (Van Oss, 1990).

4. Title 10, U.S. Code Sections 2871-2885

With the failure of Section 801, 802, and 2667 programs to meet military family housing requirements, DoD began seeking new legislation from Congress to address its near critical housing needs. Congressional response to this request was enactment of the Military Family Housing Revitalization Act of 1995, which was included in the National Defense Authorization Act of 1996. Provisions of this act became Title 10, U. S. Code Sections 2871-2885. Congress limited the authorities granted under these laws to a five-year test period in order to allow DoD to judge their effectiveness in dealing with the military family housing problem (GAO, July 1998).

The provisions of these sections of Title 10 are listed below:

1. Direct Loans: The Department of Defense (DoD) may make direct loans to persons in the private sector to provide funds for the acquisition or construction of housing units suitable for use as military family or unaccompanied housing. (10 U.S.C 2873(a), (1))
2. Loan guarantees: DoD may guarantee a loan to any person in the private sector if the proceeds of the loan are used to acquire or construct housing units suitable for use a military family housing or unaccompanied housing. (10 U.S.C. 2873(b))
3. Build or Lease: DoD may enter into contracts for the lease of military family or unaccompanied housing units to be constructed under the initiative. (10 U.S.C. 2874)
4. Investments in nongovernmental entities: DoD may take investments in nongovernmental entities carrying out projects for the acquisition or construction of housing units suitable for use as military family or unaccompanied housing. An investment under this section may include a limited partnership interest, a purchase of bonds or other debt instruments, or any combination of such forms of investment. (10, U.S.C. 2875(a), (b))

5. Rental guarantees: DoD may enter into agreements with private persons that acquire or construct military family or unaccompanied housing units under the initiative to guarantee specified occupancy levels or to guarantee specific rental income levels. (10, U.S.C. 2876)
6. Differential lease payments. Pursuant to an agreement to lease military family or unaccompanied housing to servicemembers, DoD may pay the lessor an amount in addition to the rental payments made by military occupants to encourage the lessor to make the housing available to military members. (10 U.S.C. 2877)
7. Conveyance or lease of existing property and facilities: DoD may convey or lease property or facilities, including ancillary supporting facilities, to private persons for purposes of using the proceeds to carry out activities under the initiative. (10 U.S.C. 2878)
8. Interim leases: Pending completion of a project under the initiative, DoD may provide for the interim lease of completed units. The term of the lease may not extend beyond the project's completion date. (10 U.S.C. 2879)
9. Conformity with similar local housing units: DoD will ensure that the room patterns and floor areas of military family and unaccompanied housing units acquired or constructed under the initiative are generally comparable to the room patterns and floor areas of similar housing units in the locality concerned. Space limitations by paygrade on military family housing units provided in other legislation will not apply to housing acquired under the initiative. (10 U.S.C. 2880(a), (b))
10. Ancillary supporting facilities: Any project for the acquisition or construction of military family or unaccompanied housing units under the initiative may include the acquisition or construction of ancillary supporting facilities for the housing. (10 U.S.C. 2881)
11. Assignment of members of the armed forces to housing units: DoD may assign servicemembers to housing units acquired or constructed under the initiative. (10 U.S.C. 2882)
12. Lease payments through pay allotments: DoD may require servicemembers who lease housing acquired or constructed under the initiative to make lease payments by allotment from their pay. (10 U.S.C. 2882(c) (GAO, July, 1998))

These provisions of the Military Family Housing Revitalization Initiative are designed to allow the military to take advantage of private sector investment capital to build or renovate military housing. This goal can be accomplished through the use of partnerships as provided in as provided for in Sections 2875(a) and (b). DoD's goal is to have the private sector invest at least \$3 in military housing development projects for every \$1 the government invests (GAO, July, 1998). Since the Credit Reform Act of 1990 has not been repealed, this 3 to 1 ratio of investments will help to minimize the impact of scoring on these types of projects (Desbrow, 1998).

Initially, DoD believed that this new legislation could solve their housing problems within ten years. However, as with any new initiative, difficulties were encountered as both the military and civilian developers struggled to overcome legal, contractual, and budgetary scoring issues to all parties' satisfaction. In 1997, DoD was forced to revise its estimate, and announced that it now anticipates having its housing problems solved by 2010, four years later than originally estimated (GAO, July, 1998).

C. THE DIFFERENTIAL LEASE PAYMENT (DLP) PROGRAM

As noted in the previous section, the original legislation for the DLP program was included in the Military Family Housing Revitalization Act of 1995. It allows for the government to make payments to a lessor of property acquired or constructed under the provisions of this act when costs for rent and basic utilities (water, sewer, gas, or electricity, etc.) exceed the Basic Allowance for Housing (BAH) paid by a military family living in such housing.

For example, take the case of a military family living in housing constructed through a public/private venture under this act. Assume a hypothetical monthly rent for the unit of \$1,000. The average cost of the basic utilities for the unit would be calculated based on historical or estimated data, as available. In this example, assume this figure is \$100 per month. Adding the two figures gives a prospective monthly housing cost to the tenant of \$1,100. If the service member receives only \$900 in BAH, then s/he would be eligible for a DLP of \$200 per month.

However, this payment cannot be made to the service member, as U.S. law establishes the types of pay and allowances that service members may receive. DLP, as covered in Title 10, U.S. Code Section 2877, can only be made to the lessor. So, in the above hypothetical example, one method that has been proposed to implement these payments at Naval Station Everett, WA, would be to lower the rental payment made by the service member to the developer by \$200, making the new monthly rent payment \$800. The government would then pay the developer the extra \$200 directly, for the total monthly rent of \$1,000. The service member would then be left with \$100 of BAH to pay the monthly utility expenses. If service members keep costs for utilities below \$100, the excess is theirs to keep. If their monthly expenses for utilities exceed \$100, this extra cost is theirs to pay out-of-pocket.

D. CHAPTER SUMMARY

This chapter discusses some of the different means by which military family housing for servicemembers can be procured. It discusses the differences between traditional military family housing built through the MILCON process, as well as some of

the historical and recent legislation that has allowed DoD to explore alternatives to the MILCON process through the use of public/private ventures. Lastly, it explains a potential tool available for use in lowering the out-of-pocket expenses of military families living in this type of housing: the Differential Lease Payment.

The next chapter will discuss several relevant theories on motivation in the workplace. This review is necessary in order to determine if theory can be an accurate predictor of the potential effects of paying out-of-pocket expenses to live in public/private venture housing on the quality of life and retention decisions of military members.

III. LITERATURE REVIEW

A. INTRODUCTION

In order to explore the potential relationship between eliminating service member's out-of-pocket housing expenses and their quality of life and reenlistment decisions, this chapter explores several important theories on motivation and the workplace. The primary reasons for implementing the Differential Lease Payment (DLP) program at Naval Station Everett are to improve the quality of life of sailors residing in the Country Manor Housing development and to increase their retention in the U. S. Navy. Theories on motivation serve as predictors of human behavior and are discussed to provide a framework for this study.

As the Department of Defense turns toward the next millenium, it can expect a continuation of the trend of steadily shrinking budgets. An obvious necessity for all the uniformed services will be to maximize the value of each dollar spent. This necessity increases the importance of retaining highly qualified military personnel for the maximum possible length of service. The relevance of this point pertains to the hypothesis of this study that increasing service members' disposable income, that is, eliminating out-of-pocket housing expenses, improves their quality of life enough to positively influence their retention decisions.

A review of motivational theory sets the stage for understanding the potential effects of the pilot DLP program on retention. Understanding various theories of behavior may help explain conclusions derived from the study. For example, if more money is not a primary motivator as some theorists suggest, then will increasing service

members' income by eliminating up to \$200 of housing expenses substantially influence their decisions to reenlist in the Navy? This study will answer that question and compare results with theory.

B. MOTIVATION THEORY

Over the course of the twentieth century, various motivational theories have been developed that attempt to determine why workers behave as they do, and how employers can get them to perform in the manner that the employers desire. To some degree, most of these theories can trace their origin to the principle of hedonism, which was originally espoused by some of the earliest Greek philosophers such as Plato and Socrates (Szilagyi and Wallace, 1983). Hedonism states that individuals behave in a manner that will increase their pleasure and minimize their displeasure. While this principle encouraged motivational theorists to understand considerable aspects of human behavior, other altruistic behaviors, such as public or community service, were not always explained under the hedonism umbrella, including why people choose one particular behavior over another (Szilagyi and Wallace, 1983).

As the twentieth century progressed, theorists studied motivational factors with the aim of answering these types of fundamental questions concerning human motivation. Several of these theories are now discussed in order to conceptualize a framework for the basic question of this study: to what extent will eliminating out-of-pocket housing expenses have a positive effect on quality of life and retention, particularly for the military families living in the Country Manor housing project at Naval Station Everett?

1. Scientific Management

Frederick W. Taylor wrote one of the earliest works in the area of managerial motivation, Scientific Management, in which he attempted to construct a framework by which worker efficiency could be maximized. His theory was based upon the premise that money was the prime motivator for all workers. He thus believed that worker's efficiency would be maximized by establishing a "piece-rate" system that would reward them based exclusively on their output. In order to provide workers with their best chance for maximum production, he advocated the establishment of a "single best method" approach to each specific task.

Taylor's "Scientific Method" was too narrow in its approach, however, as researchers found that despite monetary incentives, workers were unable to maintain a high level of output throughout an entire workday (Szilagyi and Wallace, 1983). Further studies showed that workers attempt to satisfy a number of needs, and that they will respond to a number of incentives including money. This revelation prompted a shift away from the Scientific Method, and led directly to further study of the human relations aspects of motivational theory.

2. Human Relations Theory

As workplace behavior came to be explained less and less by the scientific method, a new theory about human motivation began to take shape: the human relations theory. As researchers had previously found, workers respond to their environment by attempting to satisfy various needs. One of the primary proponents of this type of behavioral theory was Abraham Maslow. In his seminal work, Motivation and

Personality (1954), Maslow identified a simple but common set of five basic needs that every human being attempts to satisfy. The first of these needs are *physiological*. These are the most basic needs, which allow the body to function normally. While Maslow states that it would be "useless to make any list of fundamental physiological needs, for they can come to almost any number one might wish" (Maslow, 1970), a few examples would be hunger, sex, thirst, and sleep. As physiological needs are met, other and higher needs emerge that must be satisfied.

The next set of needs to emerge concern *safety*: security; stability; dependency; protection; freedom from fear, anxiety, and chaos; need for structure; and need for order, law, limits (Maslow, 1970). An individual exposed to danger will regress to this level of need, since everything else appears to be less important than safety and protection (Maslow, 1970).

Once both physiological and safety needs have been satisfied, the next set of needs to emerge relate to *belongingness and love*. Companionship, affection, and friendship are the desired outcomes of fulfilling this need. People avoid loneliness, rejection, ostracism, and friendlessness (Maslow, 1970). Maslow makes a strong point to emphasize that love is not synonymous with sex, as sex is viewed as a purely physiological need. Love is seen as requiring both the giving and the receiving of love and affection in order for this need to be met.

As satisfaction of this set of needs is attained, the hierarchy moves up to *esteem* needs. Maslow believed that these needs could be divided into two subsets: the desire for inner strength, personal achievement, and confidence; and the desire for reputation,

prestige, status, recognition, and appreciation (Maslow, 1970). Satisfaction of this set of needs results in feelings of self-confidence, adequacy, and of being useful in the world. Failing to attain these needs leads to basic discouragement or, worse, compensatory or neurotic trends (Maslow, 1970).

Lastly, after achieving satisfaction of the preceding four sets of needs, the highest level of need concerns *self-actualization*. Maslow best describes this need as "the desire to become more and more of what one idiosyncratically is, to become everything that one is capable of becoming" (Maslow, 1970). Terms such as personal growth and maximizing potential are at the heart of attaining fulfillment of this need for self-actualization.

Maslow also points out that while these needs are addressed in terms of a hierarchy, it is not necessary to have a need completely satisfied before the next need emerges. He points out that most members of society are partially satisfied and partially unsatisfied in their basic needs at the same time (Maslow, 1970). Further, he states that the emergence of needs is a gradual process, for example, if physiological needs are satisfied by 25 percent, then safety needs may emerge by 5 percent, and as physiological needs are satisfied by 75 percent, then safety needs may emerge by 50 percent (Maslow, 1970).

Not long after Maslow's hierarchy of needs was developed, Frederick Herzberg introduced a second popular theory that has come to be known as the two-factor theory. These two factors are called motivation and hygiene factors. Herzberg found that when he attempted to answer the question "what do people want from their jobs?" that people

most often reported feelings of happiness when discussing factors that related to tasks, and events that led them to believe they had achieved success in their work performance. Conversely, they most often reported feelings of unhappiness in conjunction with conditions that surrounded the job function, and not the function itself (Herzberg, Mausner, and Snyderman, 1959).

Herzberg thus categorized these two distinct components: motivation factors were those that inspired positive job attitudes, or satisfaction; hygiene factors, on the other hand, produce feelings of job dissatisfaction. While typically satisfaction may be viewed as the opposite of dissatisfaction, this was not Herzberg's observation.

Prior to this determination, Herzberg felt that generally, motivation theorists believed that motivation and hygiene factors were thought to operate on the same continuum (Herzberg, Mausner, and Snyderman, 1959). As such, any factor that influences job attitudes in either a positive or negative way should lead to a corresponding increase or decrease in morale. Herzberg's theory differed from this continuum, in that the motivation and hygiene factors operated independently of each other. Thus, the presence of a motivating factor would cause a positive impact on job satisfaction, but an absence of this factor would not lead to job dissatisfaction; rather, it would lead to an absence of job satisfaction, a neutral condition.

Similarly, hygiene factors worked on the aspects of job dissatisfaction. If a hygiene factor were not adequately addressed, this situation would lead to an unhappy employee, and create job dissatisfaction. However, satisfying this type of factor does not

create job satisfaction. Instead, it simply removes the source of dissatisfaction, again leaving the worker in the same neutral point as above. This theory is pictured in Figure 1 below (Szilagyi and Wallace, 1983).

Herzberg's research thus has resulted in two specific conclusions (Szilagyi and Wallace, 1983, p89):

1. There is a set of extrinsic job conditions that, when not present, result in *dissatisfaction* among employees. If these conditions are present, this does not necessarily motivate employees. These conditions are the dissatisfiers or *hygiene* factors because they are needed to maintain at least a level of no dissatisfaction. These factors are related to the *context* of the job and are called dissatisfiers.

These include:

- | | |
|------------------------|--|
| (a) Job Security | (f) Quality of technical supervision |
| (b) Salary | (g) Quality of interpersonal relations among
peers, supervisors, and subordinates |
| (c) Working conditions | (h) Fringe benefits |
| (d) Status | |
| (e) Company policies | |

2. A set of intrinsic job conditions exist that help to build levels of *motivation*, which can result in good job performance. If these conditions are not present, they do not result in dissatisfaction. These set of aspects are related to the content of the job and are called satisfiers. These include:

- | | |
|-----------------|-------------------------------------|
| (a) Achievement | (d) Responsibility |
| (b) Recognition | (e) Advancement |
| (c) Work itself | (f) Personal growth and development |

Herzberg was thus able to take the five levels of Maslow's hierarchy of needs and reduce it to two. The hygiene factors represent the lower level needs of the hierarchy, the physiological, safety, and belongingness. The motivation factors represent Maslow's higher needs, those of esteem and self-actualization. In his article "One More Time: How Do You Motivate Employees" (1991), Herzberg further explored the relationship between motivators and hygiene factors. Drawing from a sample of 1,685 employees from around

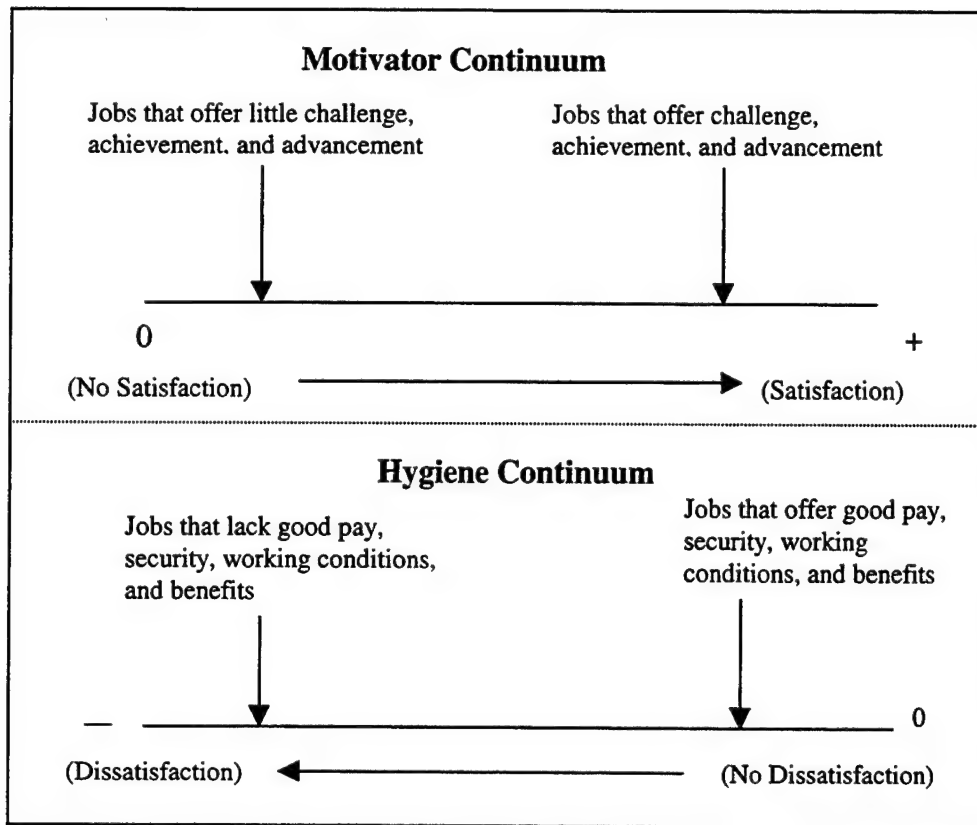


Figure 1. Herzberg's Motivator-Hygiene Theory

the world and studied in 12 different investigations, he asked them to name the factors that led to extreme job satisfaction and dissatisfaction. These workers included lower-level supervisors, professional women, nurses, military officers, engineers, teachers, food handlers, and housekeepers, and others.

The results of this study seemed to validate his earlier research. Of the 1,844 events on the job that workers stated led to extreme dissatisfaction, 69 percent were attributable to hygiene factor causes, only 31 percent to motivating-type factors. Even more significant was the result of the 1,753 events that led to extreme job satisfaction.

Fully 81 percent of these events were attributable to Herzberg's motivation factors, with only 19 percent the result of hygiene factors.

These results would seem to suggest that, on occasion and in the proper context, it may be possible for some spillover from motivational factors, or satisfiers, not being present and causing job dissatisfaction. However, it would seem to be far less likely that by attempting to influence hygiene factors, employees would reap the benefits of job satisfaction.

3. Process Theory

Yet another theory of motivation was explored by Victor H. Vroom. He believed that there were two primary questions that needed to be answered in dealing with the question of motivation. The first was why any organism becomes active at all, which he referred to as energizing. Secondly, what determines the direction that this activity would take? The problem as he saw it was to explain the choices that an organism takes between qualitatively different behaviors (Vroom, 1964).

Vroom considered the second question to be the one of primary importance. In order to answer it, he first posed the question of whether all behavior is motivated or not. His assumption was to exclude any behavior that could not be purely defined as voluntary. These exclusions included physiological reflexes and responses of the neural and muscular systems. Vroom was thus able to focus his research on the explanation of choices made among different exclusively voluntary responses. Specifically, he concentrated on individuals and their behavior exhibited on their jobs and in the job market.

In exploring the concept of expectancy, Vroom explained that outcomes attained by people are dependent not only on the choices they make, but also by events that are beyond their power to control. He uses the example of someone who buys a lottery ticket, even though they are not certain that they will win their desired prize. Decisions often involve an element of risk.

Therefore, when individuals choose between alternatives with uncertain outcomes, their behavior is influenced not only by their preferences among the possible outcomes, but also by the degree to which they believe these outcomes to be probable (Vroom, 1964). This belief is the essential element of expectancy, which Vroom defines as "a momentary belief concerning the likelihood that a particular act will be followed by a particular outcome.

He further amplified this definition with the measure of expectancy's strength. Maximal strength for an expectancy is achieved by the certainty that an act will be followed by the outcome, while minimal, or zero, strength is attained by the certainty that the act will not be followed by the outcome.

By framing his expectancy strengths in terms of numerical values, Vroom attempted to establish a mathematical model for expectancy theory. Using this model, he attempted to show the means by which people evaluate their various strategies of behavior, and therefore choose the strategy which they believe will lead to the work-related rewards that they most value. This model is shown in Figure 2 below (Szilagyi and Wallace, 1983).

The key variables of the above model are defined as follows:

An *outcome* is the end result of a particular behavior, and can be classified as a first- or second- level outcome. First-level outcomes relate to the result of putting in some effort on the job-in other words, some level of performance. Second-level outcomes, on the other hand, are viewed as consequences to which first-level outcomes are expected to lead-that is, the end result of performance (first-level) is some form of reward (second-level).

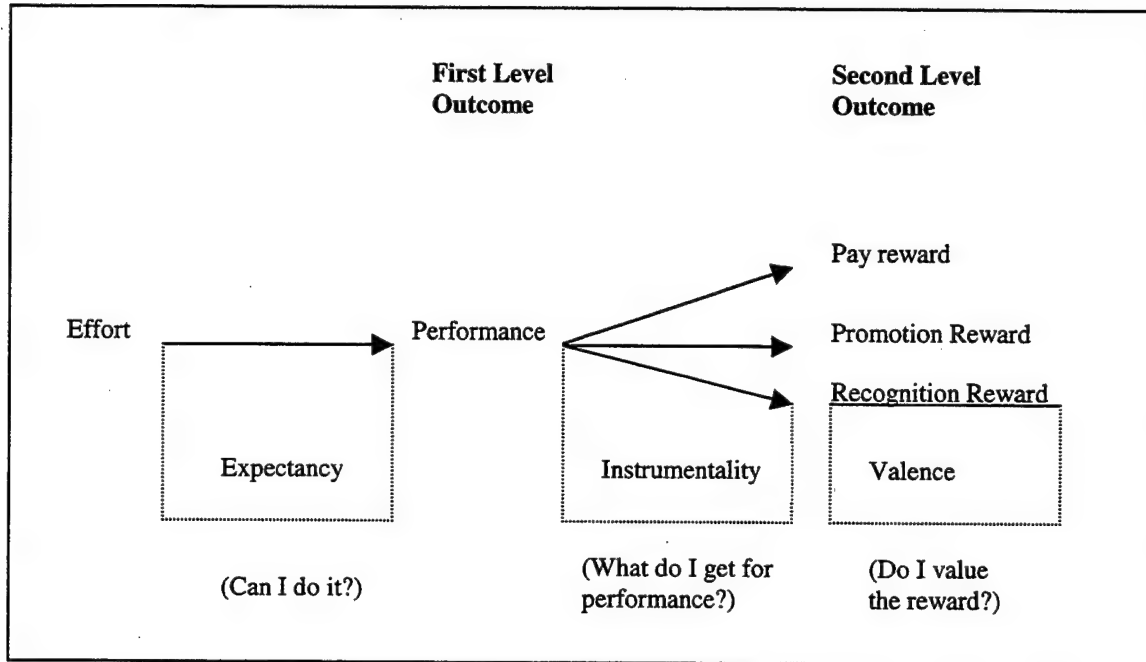


Figure 2. A Basic Expectancy Theory Model

Expectancy is belief in the likelihood that particular level of effort will be followed by a corresponding performance level. In practical terms, the issue is whether the person can actually do the assigned work. Based on probabilities, an expectancy can vary from 1.0 ("I should have little trouble getting the assignment done on time, or in reaching high performance levels") to 0 ("Even if I work extremely hard, there's no way I can get the work done on time.")

Instrumentality refers to the relationship between first- and second-level outcomes-how are performance levels and the rewards for this performance related? Like a statistical correlation, instrumentalities can vary from +1.0 to -1.0. If the first-level outcome always leads to a second-level outcome ("Continued high performance is always rewarded with a good pay raise,") the instrumentality

would equal +1.0. If there is no relationship between performance and rewards ("This organization never rewards good performance,") then instrumentality approaches zero.

Valence is the strength of a person's preference for a particular outcome. Stated differently, it concerns the value a person places on such rewards as pay increases, promotions, recognition, and so on. Valences can also have positive and negative values. In a work situation, we would expect pay increases to have a positive valence, while such outcomes as supervisory reprimand may have a negative valence-in other words, it is not highly valued.

Force to perform is the result of the preceding perceptual process and concerns how hard a person decides to work and what particular behaviors he or she is planning to exhibit (i.e., choice). Finally, wanting to perform well and actually doing so is moderated by the person's ability-his or her capacity for performing a task. In applied terms, it means what a person can do rather than what he or she will want or want to do (Szilagyi and Wallace, 1983, 96).

Vroom's theory attempted to show how mathematically, expected motivation to perform could be predicted. The three components, expectancy, instrumentality, and valence were assumed to be multiplicative in nature. Therefore, for motivation to be high, all three components had to be high. Whenever one or more of these factors is low, resultant motivation is also low (Szilagyi and Wallace, 1983).

4. Reward Theory

There seems to be little debate that individuals seek information about activities that will provide them with some reward, and they then pursue those activities in order to attain those rewards. In his article "On the Folly of Rewarding A, While Hoping for B" (1975), Steven Kerr explores the premise that reward systems are only effective if they encourage the behavior that they are trying to illicit. Unfortunately, as his research bears out, there are too many examples from recent history where behaviors that are rewarded are those that the rewarder is actually trying to discourage (Kerr, 1975).

One of Kerr's classic examples is his study of the differences in behavior between American soldiers who served in World War II and those who served during the Vietnam conflict. Though oversimplified, Kerr assumed that the primary goal of the American military hierarchy was to win the wars. He also assumed that the primary goal of the soldiers was to get home alive. The conflict between these two goals, he argues, is what the reward system should be designed to alleviate.

During World War II, the soldier knew he was "in it for the duration." More simply put, he would go home when the war was over. Thus, the rational soldier found that obeying orders was the quickest way to attain both the organization's goal and his own. Vietnam, however, was another matter. The conflict between the goals of the soldiers and the hierarchy were not adequately addressed because the soldiers got to go home when their tour of duty was over, regardless of whether or not the war was won. This time, the rational soldier found he often had a better chance of achieving his own goal by not obeying orders. In fact, it was often irrational for him to do so (Kerr, 1975).

Another example explored by Kerr was in the Group Health Claims Division of a large eastern insurance company. The company had been tracking the number of returned checks and letters of complaints in order to measure and reward accuracy in paying claims. Annual merit increases were given to all employees in one of three amounts:

1. If the worker is "outstanding" (a select category, into which no more than two employees per section may be placed): 5 percent.
2. If the worker is "above average" (normally all workers not "outstanding" are so rated): 4 percent.
3. If the worker commits gross acts of negligence and irresponsibility for which he might be discharged in many other companies: 3 percent (Kerr, 1975).

Since the difference between the categories was a mere one percent, and since the increases were often in forms other than cash, the employees were indifferent to the incentive for outstanding work, and tended to simply overpay claims without much careful scrutiny.

However, they did not ignore the company rule which stated that three or more absences or latenesses in any six-month period would result in a forfeiture of the entire four or five percent merit increase. Thus, while the company was hoping to reward performance, it actually ended up rewarding attendance (Kerr, 1975).

Therefore, Kerr argues that organizations need to realistically examine the reward systems that they currently have in place, in order to determine the behaviors that are being rewarded. Many times, undesirable behavior of members of an organization can be explained largely by an inadequate reward system. Only by aligning rewards with behavior can an organization be assured of achieving the desired results from its employees.

C. CHAPTER SUMMARY

This chapter has explored a number of motivational theories to determine the relevance of motivation theory to the basic hypothesis of this study: eliminating out-of-pocket housing expenses for military families will substantially improve their quality of life and have a positive influence on their decision to stay in the navy, i.e., increase retention. The literary works reviewed indicate the research question is both relevant and substantial. In short, motivation theories predict that increasing disposable income

(eliminating out-of-pocket housing expenses) will have a substantial positive effect on military families' decisions to reenlist.

Maslow's hierarchy indicates that housing costs would fit within the safety needs category. Having this lower-level need unfulfilled would act as an impediment to attaining higher levels of needs. This theory would thus explain the concern over persistent out-of-pocket housing expenses, and would predict a positive result from satisfying this need. At this level, members would be more inclined to make a positive decision on reenlistment.

Similarly, Herzberg's theory would likely classify paying out-of-pocket housing costs as a hygiene factor, one that would apparently cause dissatisfaction with the job. Elimination of these expenses would likely remove this aspect of job dissatisfaction for military families. Minimization of job dissatisfaction could thus have a positive effect on reenlistment decisions.

Expectancy and reward theories are also useful in relation to this hypothesis. The value that military members place on the "reward" of having out-of-pocket housing expenses eliminated can be examined, in order to determine whether the instrumentality of increased retention can be an expected outcome of eliminating out-of-pocket housing expenses.

The following chapter presents data analysis results from a written questionnaire and interviews conducted with a total of 71 military members and spouses. The methodology of constructing the questionnaire and conducting the study is also explained.

IV. METHODOLOGY AND DATA ANALYSIS

A. INTRODUCTION

The purpose of this study was to determine the impact of an experimental program designed to eliminate out-of-pocket housing expenses on the quality of life and retention decisions of military families living in public/private venture housing. The primary method selected to answer the basic research question was to submit a written questionnaire to a sample of the population of military members and their spouses residing in the Country Manor housing complex at Naval Station Everett, WA (Appendix A). The questionnaire was administered 26 to 29 April 1999 to a total of 71 military members and spouses from among 183 military families living in Country Manor during the period. In addition, semi-structured interviews were conducted with 25 of the 71 people responding to the questionnaire. Semi-structured interviews were also conducted with the following personnel:

1. Commanding Officer, Naval Station Everett
2. Command Master Chief, Naval Station Everett
3. Public Works Officer, Naval Station Everett
4. Housing Director, Naval Station Everett
5. Housing Coordinator, Naval Station Everett
6. Contract Specialist, Engineering Field Activity Northwest

The purpose of the second group of interviews was to gain additional insights about public/private venture housing in general, and the Differential Lease Payment program in particular, and to add qualitative understanding to quantitative results obtained from the questionnaire.

B. DESIGN OF THE STUDY

The study was conducted using a researcher-developed questionnaire (Appendix A) and semi-structured interviews (Appendix B). The purpose was to evaluate the potential impact of eliminating out of pocket housing expenses on the quality of life and retention decisions of military families living in Country Manor housing.

Before the questionnaire was administered, a draft of the proposed questionnaire was sent to the Pacific Fleet Force Master Chief, the Pacific Fleet Director of Military Housing, and the Housing Coordinator at Naval Station Everett. The purpose was to gain insights and ensure that the questionnaire included any additional interests expressed from the relevant stakeholders. Minor modifications and recommendations were discussed with each of the parties, and all parties concurred with the questionnaire's potential utility.

The questionnaire was designed to be simple and easy to read, and could be taken in approximately 10 minutes. Care was taken to avoid bias, i.e., no leading questions, and Likert-scaled questions afforded a range of responses including a midpoint or neutral response.

In addition to the questionnaire, each respondent was asked several follow-on questions in a semi-structured format. If the respondent voiced no additional comments, then s/he was considered not interviewed. The method used to conduct the interview was to wait until after the questionnaire was completed, then to ask each respondent if there was any further information or comments they would like to add or express about

anything related to the questionnaire and/or the general topic evoked from the questionnaire. Any comments made by the respondents were summarized in note form and repeated back to ensure that the summary accurately captured the thoughts they were expressing. A total of 25 respondents had additional comments. Comment summaries are listed in Appendix B and are discussed in Part D of this chapter.

C. DATA COLLECTION

A total of 185 units exist at Country Manor. At the time of the survey, all 185 were occupied. Relevant aspects of the occupancy breakdown are shown in Table 1:

Table 1. Country Manor Occupancy as of 29 March 1999

Bedrooms	Number Of Units	Pay grades of Residents			Total
		E-4	E-5	E-6	
2	42	6	20	12	38
3	125	18	49	46	113
4	18	0	6	8	14
Total	185	24	75	66	165

From the 185 total available units, personnel in pay grades E-4 to E-6 occupied 165 of them, almost 90 percent of the total. This fact is interesting because personnel in these pay grades represent some of the most highly trained personnel in service, many of whom are still in the process of making long-term career decisions. Thus, their feelings on quality of life and retention would be of great interest to senior naval leaders.

From the total of 183 military families living at Country Manor, 71 questionnaires were completed. The surveys were administered through door-to-door distribution. Every effort was made to collect the questionnaires immediately upon completion.

However, in six instances, it was necessary to return at a later time to retrieve the completed survey. Door-to-door was selected as the method to ensure a high return rate on questionnaires, and also to be least disruptive to respondents.

In addition to the questionnaires, 25 semi-structured interviews were conducted with the respondents. A content analysis was used to summarize recurring themes from the 25 interviewees. The major themes that emerged from their comments are presented in Part D of this chapter. All results of informal interviews are listed in Appendix B.

D. DATA ANALYSIS

The questionnaire began by asking eight general demographic questions. Results from even of these questions are listed in Tables 2 and 3 below. Table 2 shows that the sample was fairly evenly split between military members and spouses.

Table 2. Demographic Question 1

		Number	Percent
Question 1. I am a:	Military Member	37	52%
	Spouse of a Military Member	34	48%

Questions 2-6 and Question 8 addressed the age of the respondents and experience levels of the military members. The results of these questions are shown in Table X.

Demographic questions provided relevant insights concerning the sample group.

Question 2 shows 73 percent of the respondents are 30 years or older. Nearly 90 percent of the respondents were in pay grade E-5 or higher. In addition, about 90 percent of the respondents had more than six years of service, as shown by Question 4. Over 75 percent

of the respondents had previously lived at least once in government housing, from the results of Question 5. From Question 6, nearly 75 percent of the respondents had more than one dependent other than their spouse living with them. Lastly, Question 8 shows that almost 70 percent of the respondents had experienced at least three Permanent Change of Station (PCS) moves during their military careers.

Table 3. Demographic Questions 2-6 and 8.

		Number	Percent
Question 2. How old were you on your last birthday?	19-29 years	19	27%
	30-45 years	52	73
Question 3. My (spouse's) pay grade is:	E-4	9	13
	E-5	20	28
	E-6 and above	42	59
Question 4. I have (or my spouse has) the following total years of military service:	6 or less	9	13
	more than 6	62	87
Question 5. I have previously lived in government housing other than Country Manor:	Never	17	24
	Once	23	32
	More than once	31	44
Question 6. The number of dependents living with you other than your spouse is:	0	3	4
	1	16	23
	2 or more	52	73
Question 8. The number of PCS moves you have made resulting in a change of geographic location:	1	10	14
	2	12	17
	3	20	28
	>3	29	41

Taken together, these figures depict a relatively senior and experienced group of enlisted service members and spouses. In other words, results of the questionnaire will represent the perceptions of mid-level and senior petty officers and their spouses.

The questionnaire was divided into three sections. Respondents were asked a total of ten questions in the following three areas: experiences related to living in

Country Manor housing, the effects of paying out-of-pocket costs to live there, and the relative importance of paying these costs compared to other factors influencing their quality of life. The results of each question are shown in Figures 4 through 13.

For example, Figure 4 depicts all responses to Question 1, which asked respondents to evaluate the statement, "Country Manor housing is a great place to live." Although 46 percent disagreed or were neutral in their response, 54 percent agreed that Country Manor was a great place to live. All Likert-scale questions (1 through 10) were evaluated using a Chi-square (χ^2) test of statistical significance. The purpose of the χ^2 test is to determine if the responses to each question were random or whether something non-chance was occurring. The χ^2 formula, shown in Figure 3 below, refers to a Goodness of fit test. In other words, how close are the frequencies obtained to some predetermined idea, i.e., a 50:50 distribution of responses? Or, how often would these responses occur by chance?

$$\chi^2 = \frac{(M - m - 1)^2}{M + m}$$

M = Majority

m = Minority

$\chi^2 \geq 3.84, p \leq .05$

$\chi^2 \geq 6.69, p \leq .01$

Figure 3. Formula for Goodness of Fit Test

Question 1 has a χ^2 value of 13.8, $p \leq .01$. This means that respondents are generally agreeing with the statement that Country Manor is a great place to live, and their responses are not due to chance. In fact, this result would happen by chance less than one percent of the time.

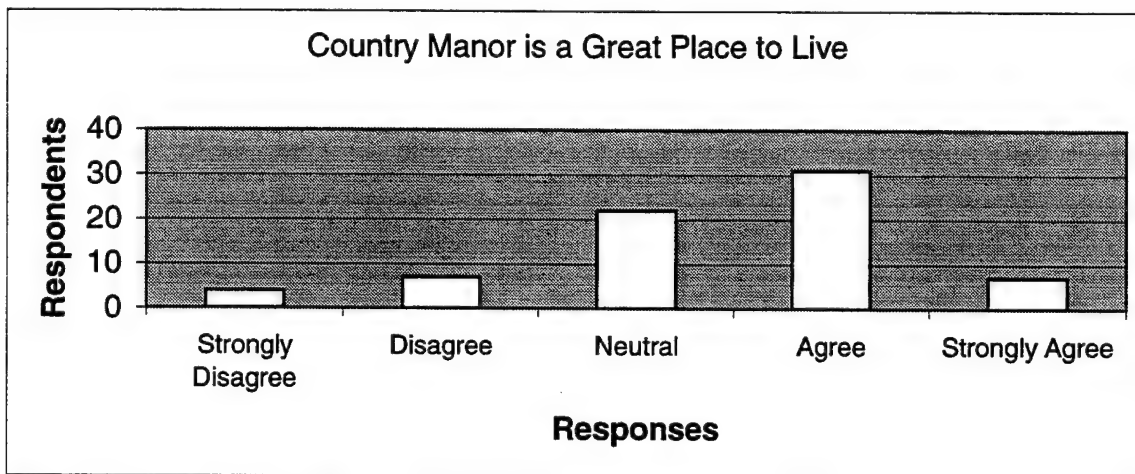


Figure 4. Results of Question 1.

Question 2 asked the respondents to evaluate the statement, "My Basic Allowance for Housing (BAH) covers all of my expenses for rent and utilities (sewer, water, gas, and electricity) for quarters at Country Manor." The results depicted in Figure 5 below show 94 percent of respondents disagreed with the statement. Using the Goodness of fit test, the χ^2 value was 59.3, $p \leq .01$. This means that respondents significantly disagree that their BAH covers their housing costs for rent plus utilities, and their responses are not due to chance.

In Question 3, respondents were asked to evaluate their feelings on the statement, "Paying out-of-pocket housing expenses at Country Manor influences my (or my spouse's) decision to reenlist." The results presented in Figure 6 show nearly half of the respondents neither agreed nor disagreed with this statement, but of the half that agreed or

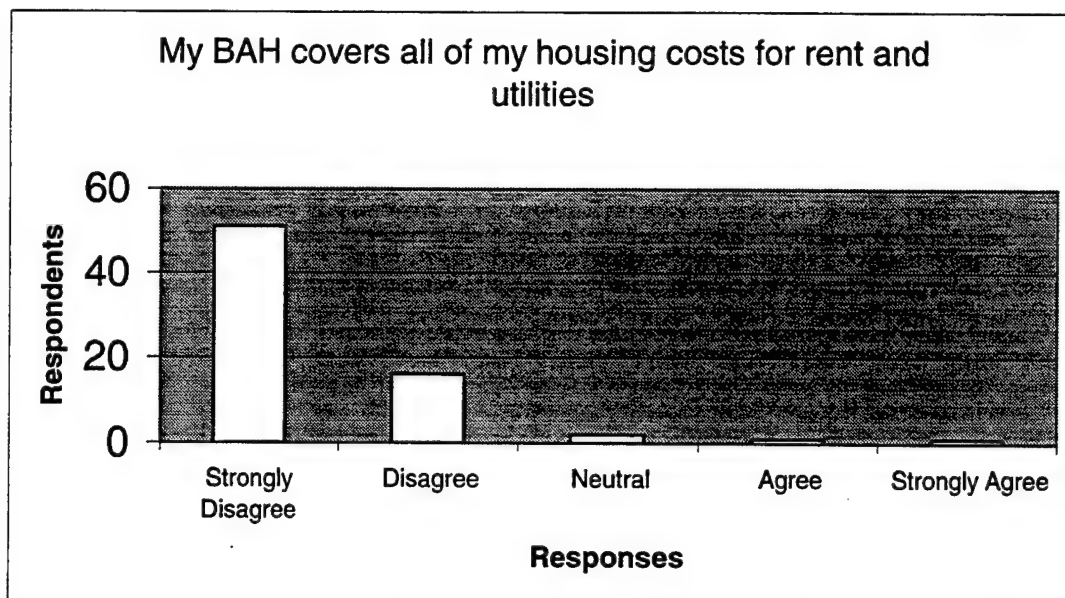


Figure 5. Results of Question 2.

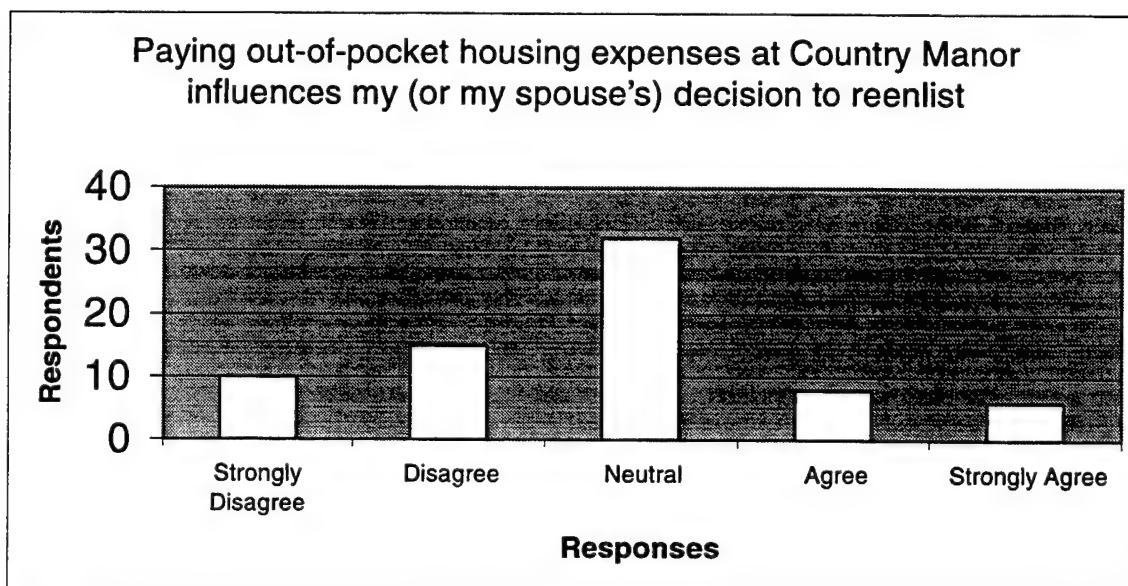


Figure 6. Results of Question 3.

disagreed, slightly more respondents disagreed. The χ^2 value of 2.6 was not significant at the level $p \leq .05$, meaning that these responses could have happened by chance. It is not possible to draw any significant conclusion from responses to this question. The large neutral response might indicate a lack of clarity or understanding regarding the wording of Question 3.

Responses to Question 4 are more revealing. This question asked respondents to show a preference for the statement, "Paying out-of-pocket housing expenses to live at Country Manor hurts my quality of life." Figure 7 shows nearly 76 percent of respondents agreed with this statement. The χ^2 value was 30.7, $p \leq .01$. In other words, it is a significant finding that many more respondents agree that paying out-of-pocket housing expenses hurts their quality of life.

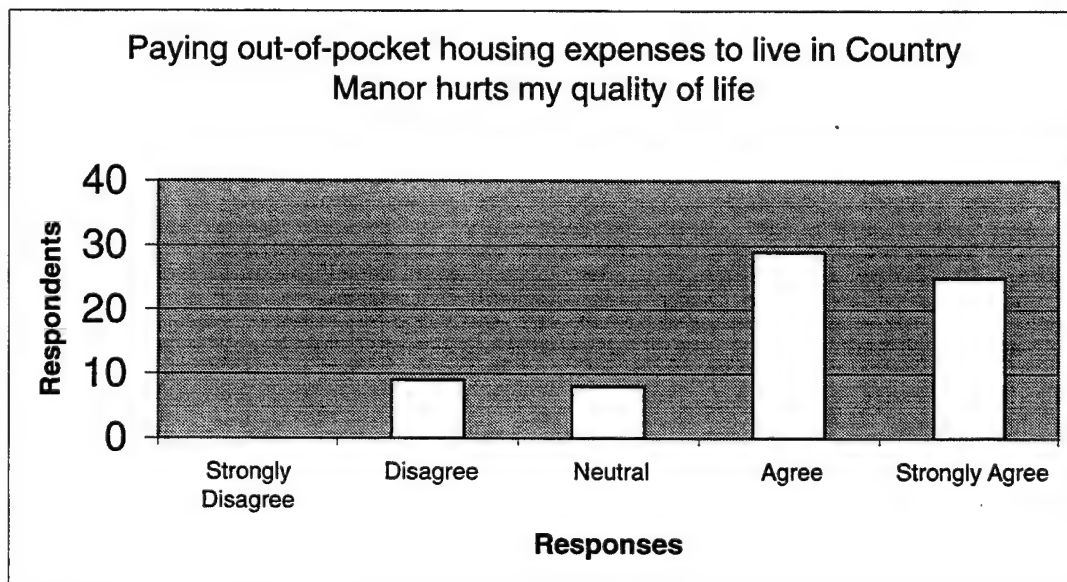


Figure 7. Results of Question 4.

Question 5 reinforces Question 4 by asking respondents to evaluate their feelings on the statement, "If out-of-pocket housing expenses are eliminated while living at Country Manor, my quality of life will improve." Results depicted in Figure 8 show nearly 90 percent of the respondents agreed or strongly agreed with this statement. The Goodness of Fit test χ^2 value was 50.2, $p \leq .01$. Taken together, Questions 4 and 5 show significant results concerning perceptions associated with housing expenses and quality of life. In short, paying out-of-pocket housing expenses significantly degrades quality of life and eliminating them would likely enhance quality of life.

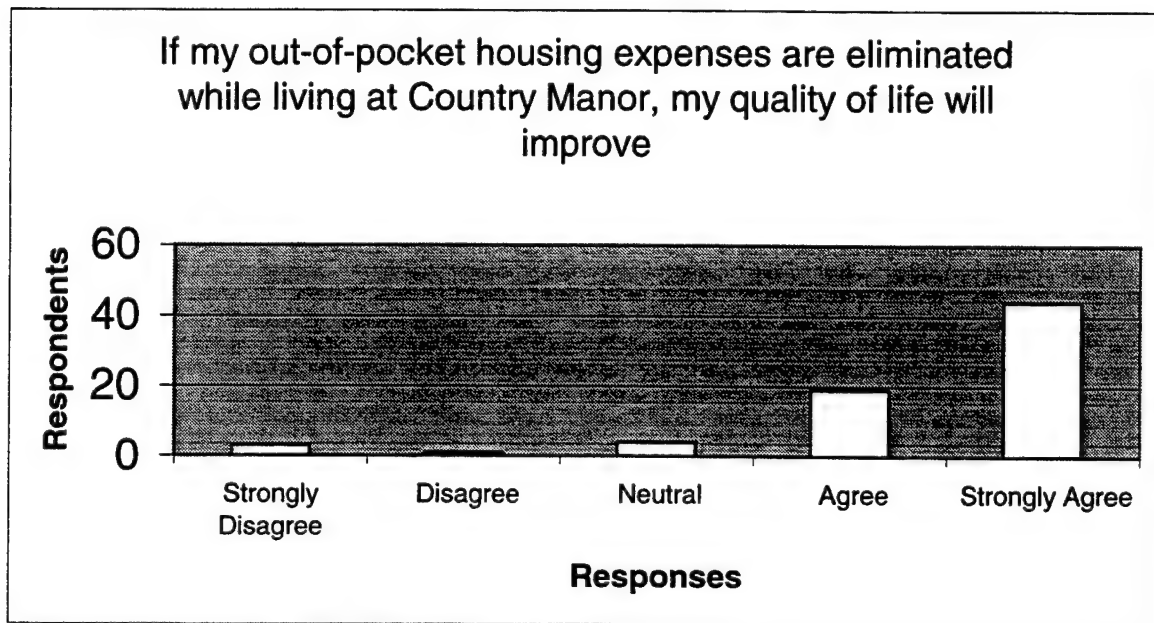


Figure 8. Results of Question 5.

Question 6 asked respondents to evaluate this statement about reenlistment decisions, "If my out-of-pocket housing expenses were eliminated while living at Country Manor, I (or my spouse) would be more likely to reenlist." Results displayed in Figure 9 below are consistent with Question 3 in that about half of the respondents neither agreed nor disagreed with the statement. However, unlike Question 3, the χ^2 value of 15.6 is significant at $p \leq .01$. This means that the greater number of respondents agreeing with the statement that eliminating out-of-pocket housing expenses would positively affect reenlistment is significantly different from the number of respondents disagreeing.

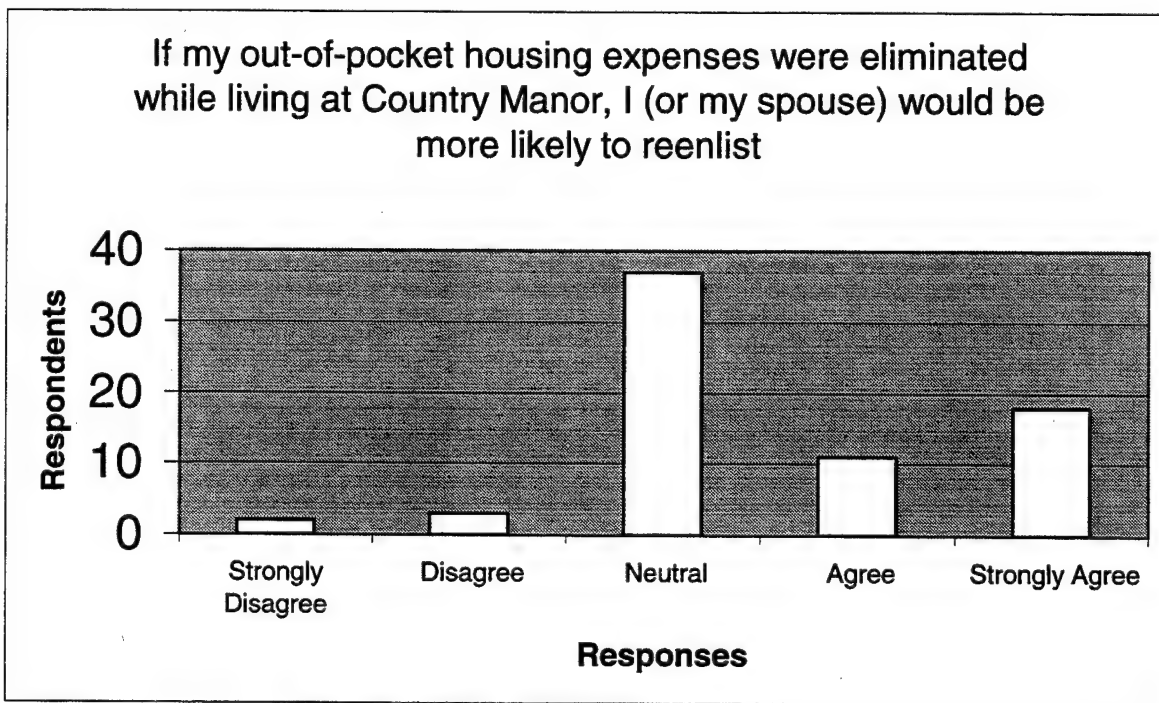


Figure 9. Results of Question 6.

Question 7 was the first of three comparative questions, in which respondents were asked to compare their preferences for either cost-free government housing or a different potential motivator. This question asked respondents how they felt about the following statement, "Cost-free government housing is more important than shorter deployments." Results depicted in Figure 10 show of 54 respondents who agreed or disagreed, over two-to-one (37 to 17) agreed. The χ^2 value of 6.69 was significant at $p \leq .01$. In other words, respondents significantly agreed that cost-free government housing is more important than shorter deployments.

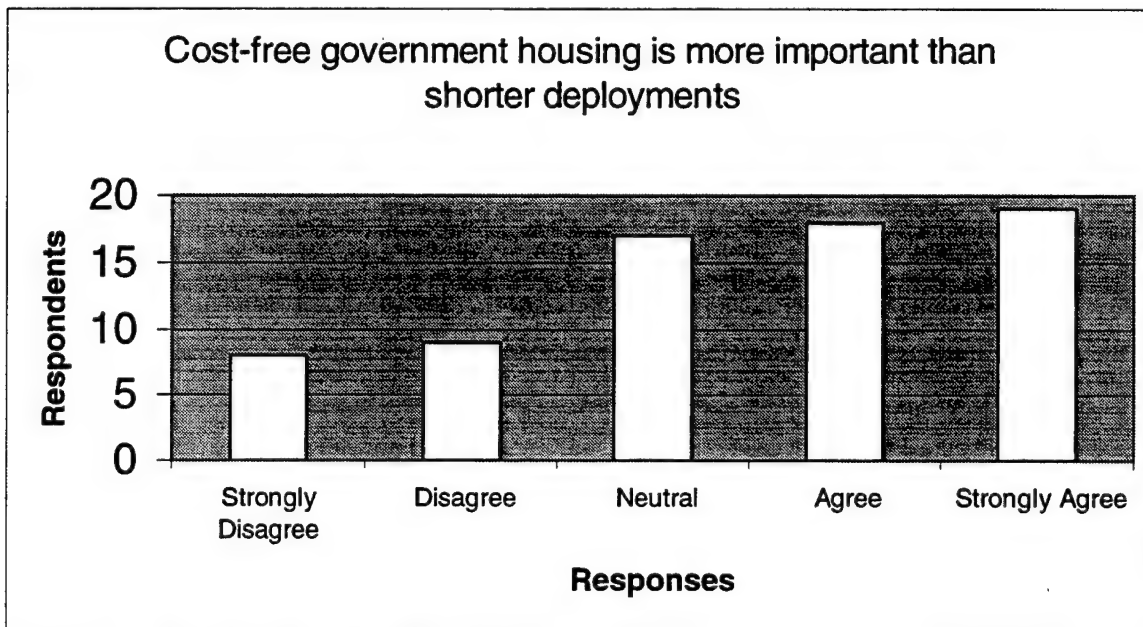


Figure 10. Results of Question 7.

Question 8 was similar to Question 7, as it also asked respondents to compare their preference for two alternative motivators. It asked respondents how they felt about

the statement, "Cost-free government housing is more important than back-to-back tours in the same geographic location." Again, as in the previous question, those respondents showing a preference agreed with the statement by a two-to-one margin (34 to 17), as shown in Figure 11. Conducting the Goodness of Fit test resulted in a χ^2 value of 5.02, $p \leq .05$. Respondents significantly agreed that cost-free government housing is more important than back-to-back tours in the same geographic area.

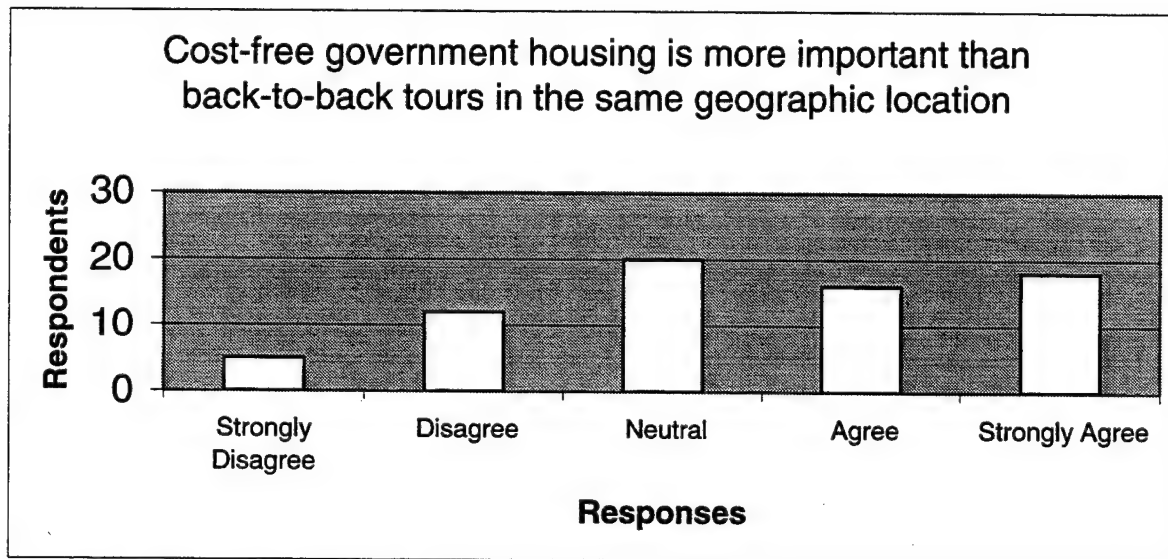


Figure 11. Results of Question 8.

In Question 9, respondents were asked how they felt about the following statement: "I would rather have cost-free government housing than a higher retirement pension." These results are depicted below in Figure 12.

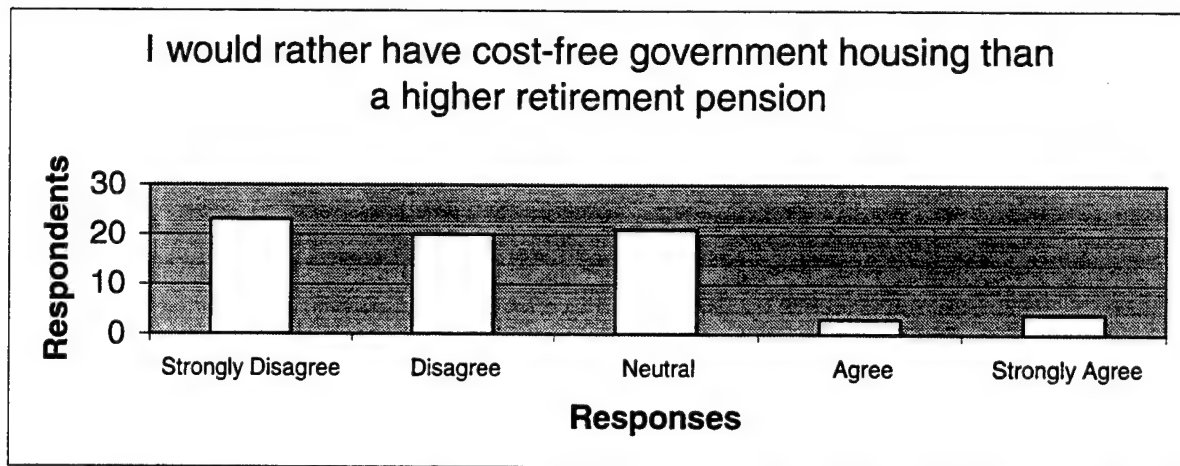


Figure 12. Results of Question 9.

Of those respondents showing a preference, a greater than six-to-one margin (43 to 7) disagreed with the statement. The χ^2 value is 24.5, $p \leq .01$. Respondents significantly disagreed that cost-free government housing was more important than a higher retirement pension.

Question 10 was the last Likert scale question. It asked respondents to evaluate their feelings about the following statement, "I would prefer to live in Country Manor housing than in the available cost-free government housing at Naval Station Everett." Results depicted in Figure 13 show by an almost three-to-one margin (46 to 16) that those respondents showing a preference agreed with the statement. The χ^2 value is 13.6, $p \leq .01$. Respondents significantly preferred living at Country Manor vice the traditional cost-free military family housing available at Everett.

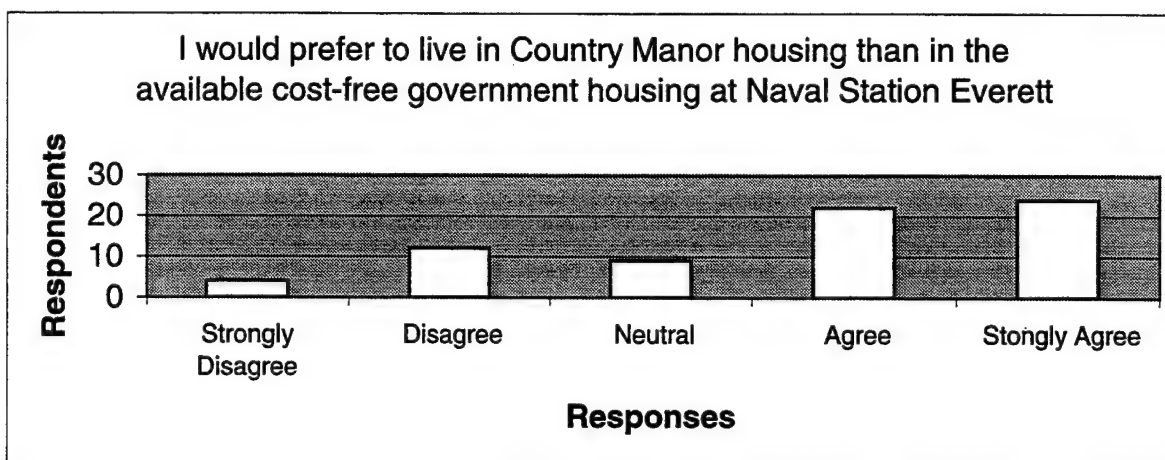


Figure 13. Results of Question 10.

Question 11 differed from the previous ten. It asked respondents to rank from one to five, with one being most important and five being least important, five factors that could influence their quality of life. The five factors were:

1. Improved retirement benefits
2. Shorter deployments
3. Back-to-back tours in the same location
4. Zero out-of-pocket housing expenses
5. Improved dependent medical care

Four of the 71 responses were unusable. Results of the 67 usable responses are presented in Table 4 below. Arithmetic modes are shown in bold to depict how respondents ranked the five factors as a group.

For example, nearly half of the respondents (mode=32) selected *improved retirement benefits* as their most important quality of life factor; in fact, more respondents placed it first than the next two factors combined. Its mean value of 2.0 shows that it was ranked as the most important factor over all others.

Table 4. Results of Question 11.

FACTOR	RANKING					MEAN
	1st	2nd	3rd	4th	5th	
Improved retirement benefits	32	15	10	7	3	2.0
Shorter deployments	8	12	14	26	7	3.2
Back-to-back tours in the same location	0	3	7	11	46	4.5
Zero out-of-pocket housing expenses	13	20	17	13	4	2.6
Improved dependent medical care	14	17	19	10	7	2.7

It is less clear which factor was considered the next most important by the respondents. Although *zero out-of-pocket housing expenses* had the largest mode for ranking number two, an identical number of respondents (50 out of 67) placed it either first, second, or third as they did for *improved dependent medical care*. In addition, the means for these two factors was nearly identical. These findings suggest that the respondents view both of these factors as being of nearly equal importance.

Question 12 was similar to Question 11, however, it asked respondents to rank the same five factors in their importance in influencing the military member's reenlistment decision. Results are listed in Table 5. Arithmetic modes are again shown in bold.

Table 5. Results of Question 12.

FACTOR	RANKING					MEAN
	1	2	3	4	5	
Improved retirement benefits	40	10	6	6	5	1.9
Shorter deployments	12	11	12	25	7	3.0
Back-to-back tours in the same location	0	5	9	14	39	4.3
Zero out-of-pocket housing expenses	8	18	21	12	8	2.9
Improved dependent medical care	7	23	19	10	8	2.8

In this case, the preference for *improved retirement benefits* was even stronger, as almost 60 percent of respondents selected it as the most important factor influencing their reenlistment decision. The mean value in this case was 1.9, far lower than for any other factor, further indicating the selection of *improved retirement benefits* as the most important factor.

As in Question 11, an analysis of the next most important factor appears to be inconclusive. In this case, examining the means and modes shows *improved dependent medical care* as the next most important factor, although its mean was nearly identical to that of *zero out-of-pocket housing expenses* (2.8 to 2.9). Also, similar to the previous question, a nearly identical number of respondents selected *improved dependent medical care* as one of their top three factors (49) as they did *zero out-of-pocket housing expenses* (47).

The questionnaire ended by asking respondents for additional comments in two general areas. Question 13 asked them to identify any additional factors influencing their quality of life and reenlistment decisions. The responses were grouped to determine if any common themes existed. Only three factors were mentioned by five or more respondents. *Problems with the property managers* at Country Manor were reported by ten of the respondents. Seven respondents mentioned the *desire for better pay*, and five respondents felt that *better detailer support* was important. Eleven other factors were mentioned by at least one respondent, indicating the wide disparity of opinions among the respondents, i.e., *fenced in yards*, *body fat standards*, and *advancement opportunity*.

Question 14 asked the respondents to summarize what eliminating their out-of-pocket expenses while living at Country Manor would mean to them. Four common themes emerged here, all being reported by at least 15 respondents. The most common theme was that eliminating these expenses would allow them to *simply live better*, reported by 29 respondents. Specifics mentioned included being able to *take family vacations, enjoy the recreation opportunities in the area, and go out to dinner or to the movies*.

The two next most reported benefits were each identified by 20 respondents. The first was *being able to pay their bills each month* and not get into debt. The second was enabling them to *save for retirement, emergencies, and educational opportunities* for their spouses.

The fourth benefit identified by the respondents that they would gain from eliminating out-of-pocket housing expenses was the *reduction of stress* from their lives. A total of 15 respondents mentioned *stress* as a current negative factor in their lives, due to the requirement to pay out-of-pocket housing costs at Country Manor. Some specific benefits that were mentioned included *eliminating the need for military members to have a second job, reducing worry about bills while they are on deployment, and simply improving their peace of mind*.

Once the questionnaire responses were collected, semi-structured interviews were conducted with each respondent. Each was asked if there was any further information they would like to add that had not been specifically addressed by the questionnaire, or if there were additional comments of any kind they would like to make regarding any aspect

of living at Country Manor. Of the 71 respondents, 25 chose to make additional comments. The complete results of these interviews are contained in Appendix B.

From the 25 semi-structured interviews, results were clustered around common themes. A theme was considered common if five or more different respondents made a comment about it. A total of five such common themes emerged from the interviews.

By far, the most mentioned theme among the respondents was some form of *complaint regarding the property management team* at Country Manor. A total of 13 respondents addressed this theme, with comments ranging from unresponsiveness to their maintenance requests, lack of willingness to address after-hours problems, threatening or abusive language, and a strong perception that tenants were being unfairly treated during check-out procedures.

The next most common theme was the perception that the *houses suffer from very poor construction quality*. Thin walls, roof tiles that were already coming off after less than two years, and numerous cracks in walls and ceilings from post-construction settling were some of the complaints that were mentioned by nine of the 25 interviewees.

The third common theme mentioned during the interviews was a feeling of *stress induced from paying out-of-pocket housing expenses*. A total of eight of the 25 interviewees reported some level of anxiety caused by the expense of living at Country Manor, even though they liked living in the units. General feelings that paying these costs "hurt" were mentioned, as well as specific worries about stress caused by worrying about paying their bills. Also, a lack of spouse employment opportunities other than in the fast food or convenience store industries was mentioned as exacerbating this situation.

The last two common themes were both reported by five of the respondents who were interviewed. The first was the feeling that *they like living at Country Manor*. They specifically mentioned that they felt safe having other military families around them and that it felt as if they were living in a traditional military family housing environment. The last common theme was they felt *the Differential Lease Payment program was a good idea*. Several respondents mentioned they "heard rumors" that this program was in the works, and they were extremely excited about the possibility.

E. CHAPTER SUMMARY

The purpose of this study was to determine the possible effects of eliminating out-of-pocket housing expenses on the quality of life and retention decisions of military families living in public/private venture housing. A sample of 71 military members and spouses residing at Country Manor housing at Naval Station Everett, WA, were selected to gain understanding about this question. Each respondent was given a 14-question questionnaire, and semi-structured interviews were conducted with 25 of the 71 respondents. Answers to the questions were then analyzed using the Goodness of Fit test to determine statistical significance, as well as analysis of arithmetic means and modes and frequency of responses to determine how the respondents felt about each question.

Significant ($p \leq .01$) results of the study included the following: *quality of life was hurt by paying out-of-pocket housing expenses; quality of life would improve if out-of-pocket housing expenses were eliminated; respondents would be more likely to reenlist if out-of-pocket housing expenses were eliminated; and improved retirement pensions were more important to reenlistment decisions than cost-free government housing.*

Additionally, many respondents were extremely dissatisfied with the property management team at Country Manor housing. These findings form the basis of the conclusions and recommendations of this study, which are expanded upon in the next chapter.

V. CONCLUSIONS AND RECOMMENDATIONS

This study examined the possible effects of eliminating out-of-pocket housing expenses on the quality of life and retention decisions of U. S. Navy families. Seventy-one military members and spouses at Naval Station Everett responded to a written questionnaire (Appendix A). Of those 71 respondents, 25 members and spouses were interviewed (Appendix B). The purpose of the questionnaire and interviews was to obtain quantitative and qualitative data on the topic question.

Naval Station Everett was selected because it is a test site for a Department of Defense pilot program called the Differential Lease Payment (DLP) program. This program, when implemented, will eliminate out of pocket housing expenses for the military families residing in the Country Manor housing project that was constructed using a public/private venture contract. The basic hypothesis of this study, and a premise initially indicated by CINCPACFLT, is that eliminating out-of-pocket housing expenses will improve the quality of life of military families, and positively impact their retention decisions. This hypothesis has been supported at the .05 level of confidence.

Questionnaire results were analyzed in Chapter IV. The questionnaire was designed to solicit perceptions about the potential impact of implementing the DLP program on two of the most important issues facing the U. S. Navy: quality of life and retention. Data results form the basis for the following conclusions and recommendations regarding DLP program impact. Also discussed are additional conclusions concerning public/private ventures as an emerging alternative for military family housing.

A. QUALITY OF LIFE AND RETENTION

1. Conclusion

Primary Research Question: What is the effect on retention and quality of life when out-of-pocket expenses are eliminated for military members living in public/private venture housing?

Eliminating out-of-pocket housing expenses will markedly improve the quality of life for military families living in Country Manor housing, and will likely have a positive effect on retention.

As shown in Chapter IV, 94 percent of the sampled group currently pay more than their Basic Allowance for Housing for their rent and basic utilities. When all were asked if eliminating these out of pocket costs would improve their quality of life, almost 90 percent of those surveyed either agreed or strongly agreed with the statement. Interviews revealed that families were paying from \$50 to over \$200 per month to cover these housing costs. The most severely impacted group was the most junior personnel, especially those with spouses who were not working.

The respondents stated they anticipated using the money they would save on housing costs in a variety of ways. Among the most common responses were:

1. Spending for more family related activities to enjoy their off-duty time in the local area.
2. Paying-off bills to reduce debt.
3. Increasing savings for retirement planning and also to meet unexpected emergency expenses such as major medical costs.
4. Increasing investment in education for children and spouses.

2. Recommendation

Implement the Differential Lease Payment Program as soon as possible.

The primary research question of this study was to determine if elimination of out-of-pocket housing expenses would substantially improve the quality of life of military families, and make them more likely to reenlist. Quantitative and qualitative findings support the hypothesis that both outcomes are likely. Interviews with senior leaders and housing program managers at Naval Station Everett indicate that funding for the program has already been obtained. Although this factor is outside the scope of this study, it is relevant in terms of the primary recommendation to implement the DLP program as soon as possible. The issue of funding for the DLP program is briefly discussed in a later section as a possible impediment to implementation.

B. STRESS REDUCTION

1. Conclusion

Primary Research Question: What is the anticipated effect of implementing the Differential Lease Payment program at Naval Station Everett, WA?

**Implementing the Differential Lease Payment program will reduce the level of stress
for military families living in Country Manor housing.**

Another common but less quantifiable benefit military family respondents expected to gain from eliminating out-of-pocket housing expenses was a reduction in stress. Both military members and spouses identified the stress they face when paying their monthly bills as a cause of great concern. As noted in Chapter IV, 15 of 71 respondents listed stress from paying out-of-pocket housing costs as having a definite impact on their quality of life. Also, eight of 25 semi-structured interviews reported this same finding. Although this ratio may appear small, the emotional intensity of this issue is substantial. Spouses especially associated high stress with an inability to pay all family expenses, particularly during the military member's deployment. Having an additional \$100 to \$200 per month as a relief from housing costs could substantially reduce their stress levels and improve quality of life. In summary, although difficult to quantify less stress with higher retention, an overall conclusion drawn from this study is that eliminating out-of-pocket housing expenses will reduce stress and positively impact service members' reenlistment decisions.

2. Recommendation

**To reiterate, implement the Differential Lease Payment Program
as soon as possible.**

A primary objective of the Differential Lease Payment program is to improve the quality of life of military families. Since many of the respondents have clearly stated that

stress from paying out-of-pocket housing expenses has a strong negative impact on their quality of life, the recommendation to implement the DLP program is reemphasized.

3. Possible Impediment to Implementation.

Based on interviews conducted with senior leaders and other housing personnel at Everett, the main obstacle to implementing the DLP program was thought to be obtaining additional required funding. This additional funding of \$2.1 million (Carpenter, 1999) represented an approximate 33 percent increase from the Navy's original \$5.9 million investment in the building of the Country Manor development. However, that obstacle was cleared in December of 1998 when Congress approved the additional funds (Buike, 1999).

Again, based on interviews with senior leaders and housing managers at Everett, the holdup as of mid-1999 appears to be coming from the Office of the Secretary of Defense (OSD), where an implementation plan for DLP has been stalled since January 1999. While the reasons for the delay are beyond the scope of this study, the delay is conceivably turning a potentially positive force for retention into a negative one. Military families are aware of the program, as shown by the semi-structured interviews with them, and are also aware of the persistent delay. Senior Naval leadership should take action to either rapidly implement the DLP program, or cancel it, and communicate the decision to the affected Navy families.

C. ADDITIONAL FINDINGS RELATED TO RETENTION DECISIONS

1. Conclusion

Primary Research Question: What possible alternative factors might apply towards improving retention and quality of life?

Eliminating out of pocket expenses for families living in Country Manor is less important to these sailors' reenlistment decision than improved retirement benefits.

Only ten percent of all respondents felt cost-free government housing was more important than a higher retirement pension, while over 60 percent felt that a higher retirement pension was more important than cost-free government housing.

Additionally, 40 of the 67 people who showed a preference for retirement benefits over cost-free housing indicated that improved retirement benefits was the most important factor affecting their decision to reenlist. A total of eight respondents listed zero out of pocket housing expenses as their primary motivator to reenlist.

However, when considering other questions asked of respondents, eliminating out-of-pocket housing expenses is more important than the previous figure indicates. For example, almost 41 percent of all respondents indicated that if out-of-pocket housing expenses were eliminated, then they would be more likely to reenlist. In other words, almost half of all respondents indicated that eliminating out-of-pocket housing expenses

mattered in their reenlistment decision. The number of respondents agreeing with this statement is significant at the .05 level of confidence.

Also, when given the choice between shorter deployments or back-to-back tours in the same geographic location, cost-free housing was preferred over both of these alternatives by a greater than two-to-one margin, supported at the .01 level of confidence. In summary, the main hypothesis of this study is supported, in that eliminating out-of-pocket housing expenses will substantially improve quality of life and will likely have a positive impact on reenlistment decisions.

2. Recommendation

A strong effort should be made by senior naval leaders to push legislation that will improve the retirement pay level for military members.

This recommendation appears to mirror a position commonly held by many senior naval leaders. Attempts have been made since the implementation of the reduced retirement pay scale to have Congress raise retired pay levels. In the past, however, these attempts have failed for many reasons, most of which have been due to overall reduced spending in the defense budget since the end of the Cold War.

Currently, though, there is a change of momentum in Congress after testimony of the armed services heads indicated to Congress that desired readiness levels are not being met at current funding levels. One of the issues being debated is the raising of retired

pay. The opportunity exists for Department of Defense senior leaders to push for adoption of restoration and enhancement of retirement benefits. With a strong economy, it is increasingly difficult to retain the Navy's best-trained and technically qualified personnel. Getting the most out of every dollar spent is vital to efficient operation of the armed forces and ultimately national defense. Results of this study strongly indicate that improved retirement benefits may be the single most important factor for increasing retention. In short, mid-grade enlisted members are thinking long-term. A stronger pension will cause many to remain in service, will save millions of dollars in training costs, and will likely improve readiness by retaining experienced personnel.

D. ADDITIONAL FACTOR AFFECTING QUALITY OF LIFE

1. Conclusion

Primary Research Question: What possible alternative factors might apply towards improving retention and quality of life?

Some residents at Country Manor housing are extremely unhappy

with the current property management process.

While not originally part of this study, this finding loomed in importance. In Question 13 of the questionnaire, a total of 10 out of 71 respondents noted significant problems with the local property management team. Additionally, almost half of all respondents interviewed (12 out of 25) expressed some form of complaints about the property management team, summarized below along three major themes:

1. **Unresponsive to needs.** (10 out of 25 respondents)
2. **Unwilling to address after-hours problems.** (8 out of 25 respondents)
3. **Problems concerning checkout inspections.** (9 out of 25 respondents)

These problems can be grouped into two basic categories: process and behavioral.

For example, the manager's office closing at 1700 on weekdays is a process problem because when many sailors return from work, the office is already closed. To emphasize an earlier point brought up about the funding impediment, office hours are beyond the scope of this study, however, important data relevant to quality of life and retention has emerged, i.e., the high level of dissatisfaction expressed from the interviews.

Although what has been termed as a "behavioral" problem is understandably sensitive, it is still relevant and noteworthy that more than a few respondents expressed anger and frustration towards the property management team. For example, residents felt they were at the mercy of the manager when they were ready to vacate their units. A provision in the contract allows the manager to bill tenants up to ten days after they vacate for damages to their units. Many tenants told stories of people being billed for \$800 or more for repair costs that were not addressed during the check-out inspection, but were subsequently discovered during the ten-day period. Again, verifying this anecdotal evidence was not done. The point is that some respondents *clearly perceive* that the managers use the check-out process as a means of obtaining additional revenue for the developer.

Another example is provided to illustrate the civil-military relations phenomenon that must be consistently assessed and improved upon. The property manager was

reported to have threatened to call the police to remove a military member and his spouse from the manager's property when they attempted to inform him of an after hours problem. Whenever contract providers (business sector) come into contact with military personnel (public sector), whether in the context of this study, or in future public/private venture arrangements, the relationship must be managed from both process and behavioral perspectives.

The point of including this information is to portray a supplemental finding that is relevant to quality of life. Critical relationships must be understood, monitored, and fostered between contract providers and military personnel.

2. Recommendations

- a. Conduct a current customer satisfaction survey to clarify the scope and depth of the contractor-service member relationship.**
- b. Initiate a dialogue with the property managers at Country Manor to improve customer relations.**
- c. Distribute a Navy-wide lessons learned bulletin emphasizing actions that can be taken to build and ensure customer satisfaction throughout the life of public/private venture housing contracts.**

d. Ensure measurement of customer satisfaction is integral to all future public/private venture contract Performance Work Statements.

Obviously, property managers are faced with a challenging dichotomy. On one hand, they have a strong fiduciary responsibility to the developer who pays their salaries and in return entrusts them to maintain the properties in good condition so they can eventually be sold on the open market. On the other hand, they must address the concerns of the military families living at Country Manor. However, no provision exists whereby tenant complaints can be used to evaluate and modify property manager performance. In fact, the managers' fiduciary responsibility to the developer may act as a disincentive to spend money to address the complaints of the tenants to their satisfaction.

In order to balance this situation and address the concerns of the military families living in public/private venture housing, a possible solution is to provide incentives to developers and property managers for achieving agreed upon levels of tenant satisfaction, i.e., pay for performance. A minimum threshold level could be established. If customer satisfaction fell below the threshold, then some appropriate penalties could be imposed. The installation Housing Office could act as an unbiased collection point for the survey data, and report its findings directly to the developer to avoid the possibility of tampering.

Such a system would give a measure of control and power to the tenants, and help to balance the actions of the management team to more fairly represent the interests of both the tenants and the developers. It would likely lead to improved customer

satisfaction, and better relations between the tenants and the management team without unduly affecting the fiduciary responsibility of the managers to the developer.

E. COMPARISON WITH MOTIVATIONAL THEORY

As discussed in Chapter III, various motivational theories were examined to determine if they would accurately predict the outcomes of this study. Among the primary motivational theories presented were those of Maslow (1954) and Herzberg (1959). These theories conceivably predict that military families living in public/private venture housing would experience high levels of dissatisfaction by having to pay out-of-pocket expenses for rent and utilities. The impact of having their lower-level basic needs not fulfilled would likely preclude them from attaining higher-level needs such as job satisfaction. Therefore, they would likely attempt to adjust to this situation by leaving the service to seek satisfaction of these lower level needs through better paying employment.

The results of this study show that these motivational theories reasonably predict the feelings expressed by the respondents. As noted in Chapter IV, 94 percent of respondents stated their Basic Allowance for Housing did not currently cover their basic rent and utility costs to live at Country Manor. About 76 percent of them stated that paying these out-of-pocket expenses hurt their quality of life. Also, when asked if eliminating these expenses would improve their quality of life, almost 90 percent of them said that it would. All of these results were significant at the .01 level of confidence.

Further, when asked if eliminating out-of-pocket expenses would make them more likely to reenlist, respondents who showed a preference agreed that they would

indeed be more likely to reenlist ($p \leq .01$). The findings of this study show that motivational theory can be an effective predictor of behavior.

F. AREAS OF FUTURE RESEARCH

This study of the Differential Lease Payment program and its effect on the quality of life and retention decisions of the military families residing in the Country Manor housing project has generated a number of related issues that were not specifically addressed by this thesis. They may serve as possible topics for future research.

Public/private ventures are gaining popularity among the senior military and civilian leadership of the Department of Defense. While the current number of completed projects is relatively small, this number will expand in the future as every attempt is made to spend the limited dollars of the defense budget wisely.

Therefore, looking at the successes and failures of each project to determine the best practices that may be employed in future public/private ventures may be of substantial benefit. Specifically, the only completed Navy public/private venture in housing other than Country Manor is located at Corpus Christi, Texas. A comparison could be done between the two projects to determine aspects of each that are similar, as well as those that are different. The study could determine any site-specific reasons for different procedures, and an attempt could be made to establish whether there are procedures that may be in the Navy's best interest to incorporate into every future public/private housing venture.

In addition, there appears to be at least some feeling that family housing of any kind is outside the DoD's core competence, whether it be traditional military family

housing built using the Military Construction budget appropriation, or public/private ventures. It has been argued that doing away with all types of military housing, except for only the most remote locations, and turning the expenditure savings into increased Basic Allowances for Housing (BAH) for all uniformed personnel to live in community provided housing would be more cost-effective.

A study could be done attempting to capture the savings of eliminating all types of military housing. The study could determine if this amount could be transferred into BAH accounts in order for service members to find adequate community housing without experiencing a detrimental impact on their quality of life.

When military families move into Country Manor, they are required to sign a check-in sheet reminding them that they are living in community housing, not military family housing. By this standard, their status is identical to the thousands of military families in the Northwest Region who are paying BAH to live "out in town" so to speak. When DLP was originally proposed in 1996, it was intended to cover all the out of pocket expenses for housing of all military families living in community housing, not just those living in Country Manor. This proposal was rejected as too expensive, so it was revised to include only those families in Country Manor. While DLP, when enacted, will have a significant positive impact on the quality of life for Country Manor residents, what of the other families living in community housing in the region? A study could be conducted on the additional impact of the DLP program on these families who are not included. It is possible that by positively addressing the issue of quality of life among these 183 military

families, DLP may actually cause a negative quality of life impact on the thousands of military families in the area who are not eligible to receive it.

While DLP funding has been approved, it is still only a theory until the military families are actually receiving the benefit. This study has assessed the potential positive impact of this program. The next logical step would be to measure the actual effect that DLP has on military families after it is implemented. An adequate amount of time should be allowed to elapse, perhaps six months, so that families will have sufficient opportunity to assess the impact of having additional disposable income each month conclusions and recommendations.

APPENDIX A. Housing Information Questionnaire

Thank you for your cooperation in participating in this survey. Please complete the entire questionnaire. Your anonymity is **absolutely promised**. **NO** names or personal identification information of **any kind** will be collected or used.

Demographic information:

1. I am a: ☐ military member ☐ spouse of a military member
2. How old were you on your last birthday? _____
3. My pay grade, or the pay grade of my spouse, is (ex: E-1, E-2, ...): _____
4. I have, or my spouse has, the following total years of military service: _____
5. I have previously lived in government housing other than Country Manor:
☐ Never ☐ Once ☐ Twice ☐ More than twice
6. The number of dependents (other than your spouse) living with you is: _____
7. Your unit has (circle one): 2 bedrooms w/den 3 bedrooms 4 bedrooms
8. The number of PCS moves that I have made that resulted in a geographic change of location is: _____

For the following questions 1 through 10, please use the scale shown below when giving your answer:

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

1. How do you feel about the following statement?
Country Manor housing is a great place to live.

1	2	3	4	5
---	---	---	---	---

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

2. How do you feel about the following statement?
My Basic Allowance for Housing (BAH) covers all of my expenses for rent and utilities (sewer, water, gas, and electricity) for quarters at Country Manor.

1	2	3	4	5
---	---	---	---	---
3. How do you feel about the following statement?
Paying out of pocket housing expenses at Country Manor influences my (or my spouse's) decision to reenlist.

1	2	3	4	5
---	---	---	---	---
4. How do you feel about the following statement?
Paying out of pocket housing expenses to live in Country Manor hurts my quality of life.

1	2	3	4	5
---	---	---	---	---
5. How do you feel about the following statement?
If my out of pocket housing expenses are eliminated while living at Country Manor, my quality of life will improve.

1	2	3	4	5
---	---	---	---	---
6. How do you feel about the following statement?
If my out of pocket housing expenses were eliminated while living at Country Manor, I (or my spouse) would be more likely to reenlist.

1	2	3	4	5
---	---	---	---	---
7. How do you feel about the following statement?
Cost-free government housing is more important than shorter deployments.

1	2	3	4	5
---	---	---	---	---

8. How do you feel about the following statement?
Cost-free government housing is more important than back-to-back tours in the same geographic location.

1 2 3 4 5

9. How do you feel about the following statement?
I would rather have cost-free government housing than a higher retirement pension.

1	2	3	4	5
1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

-
10. How do you feel about this statement?
I would prefer to live in Country Manor housing than the available cost-free government housing at Naval Station Everett.

1 2 3 4 5

11. Rank from 1 to 5 the factors you feel are most beneficial to your quality of life.
(1=most important 5=least important)

- () Improved retirement benefits
- () Shorter deployments
- () Back-to-back tours in the same location
- () Zero out of pocket housing expenses
- () Improved dependent medical care

12. Rank from 1 to 5 the factors that most influence your (or your spouse's) decision to reenlist. (1=most important 5=least important)

- () Improved retirement benefits
- () Shorter deployments
- () Back-to-back tours in the same location
- () Zero out of pocket housing expenses
- () Improved dependent medical care

13. Please comment on **additional factors** influencing your quality of life and reenlistment decisions.

14. In your own words, summarize what eliminating out of pocket housing expenses while living in Country Manor housing will mean to you.

Thank you for your participation in this survey.

APPENDIX B. Results of Informal Semi-structured Interviews

1. Spouse of E-5. Enjoys feeling of community and safety, even without the "fence and gate." Neighbors are also military and share common experiences of deployments and separations. Definitely prefer Country Manor to living "out in town."
2. Military E-5. "Paying out of pocket expenses is killing me, even though I like the place." Would not make the move into "free" government housing from Country Manor because he would not want to uproot his family. He might answer some of the questions differently if he had fewer years of service (17). He worries much more about bills now than when he lived in government housing in Bangor.
3. Military E-6. Country Manor is a "good idea" but rental laws in Washington state seem to favor landlords vice tenants. Feeling that landlords are trying to make a profit during tenant checkout. Unfair charges for things that should be considered normal wear and tear. Not enough playground areas for younger children-the ones that are available are too small and not well enough constructed. Feels that it is a good deal for landlords to have "navy folks" living in Country Manor due to ability to get timely rental payments and security at checkout time of getting the funds they want. Wishes that "Navy Housing Office" could get more involved in tenant/landlord disputes. "DLP would be great."
4. Military E-6. On site manager takes too long to fix discrepancies when they are called in. Waiting more than a month now with no action. "Likes the area, likes the place." Help with out of pocket expenses would be "fantastic." Had two rent increases in 15 months of living there. Maybe just bad timing but still doesn't think it's fair.
5. Spouse of E-5. Rent free government housing is "too far away." Currently paying about \$200 per month on average to live in Country Manor. Getting rid of that payment "would be great!"
6. Military E-5. Manager has not fixed discrepancies that were reported several months ago due to home "settling" after completion. Worried that he will be blamed for them at checkout time if they are not corrected. Manager is too strict on check out inspections-not enough allowance made for normal wear and tear. They have to look "like new" to be satisfactory. Not enough swings and playgrounds for young kids. "It's a nice place, but it's really cheaply made. I should know, I used to build houses." Neighbor's roof is already coming off in places. It is "very expensive to live here." "I don't think junior enlisted people can afford it very well."

7. Military E-6. The houses are cheap construction, but the appliances at least are very good. Not happy with the property manager and the way he works. "It is very expensive to live here." Never had to pay utilities like water and sewer before without owning the place. "It's a pain doing that." The \$2 per month admin fee for paying the rent electronically is also a pain. Doesn't understand why it is required. Construction in traditional government family housing is "much better" than at Country Manor."
8. Military E-5. Construction and insulation are ok, but lots of settling problems after houses completed-lots of wall and ceiling cracks. Some houses built on reclaimed swampland-bad drainage.
9. Military E-6. Pays almost \$200 per month out of pocket-"that hurts". Built shelves for storage in garage but property manager says he has to remove them when he leaves-"if it's an improvement, why have to remove it? That's a pain."
10. Military E-8. Too crowded for senior people who have accumulated lots of stuff over the years-not enough storage room. Construction is "fine." Quality for the price is "outstanding" compared to what is on the civilian market. Utilities are expensive-"I pay as much for this place as for the much bigger house I used to have here." Allotment problems because of the \$2 fee.
11. Military E-4. Likes the sense of community, "it's just like it is in government housing, but this is much easier to get." Spouse works, or else living here would be "really tough."
12. Military E-5. Likes living there, but it's "very expensive to live." "Out-of-pocket costs really hurt my morale." "Sailors are on food stamps, it shouldn't be like that. Need to find a way to take care of our own."
13. Military E-6. Manager told tenants they need to take care of the units "like they own them (i.e.-minor repairs)." Tenants responsible for making trouble calls for repairs. Management wouldn't help with mouse problem-coming through "settling" holes from the outside. Managers don't put out enough information-more flyers would help.
14. Spouse of E-6. When she went to the manager for trouble call help after hours, he said, "You're abusing me! Get off my property or I'll call the police!" Lack of privacy-surprise visits by manager, he doesn't even ring the doorbell. No help with rodent problems. "I'll charge you \$5 for every spot on the carpet when you check out"-what is the \$75 carpet cleaning fee for?

15. Military E-6. Not enough storage/closets. Have to use the garage. "It would sure be nice to get that DLP I've heard about!"
16. Spouse of E-6. Houses are "nice to look at, but they're not made out of much." They're ok to rent, but wouldn't buy one! Property managers are "a pain" on checkout.
17. Spouse of E-6. "Crappy construction" of the houses. Bad management-they leave threatening notes on the doors-no people skills.
18. Military E-6. PPV housing is "the best buy for the dollar from the Navy's perspective. Country Manor is a "shoddily done job." Had to have entire floor replaced within six months due leak in water line under house that inspectors did not catch.
19. Military E-6. A bowling alley at the support complex would be nice! Also a gas station. Need to have higher BAH rates for this area-it's too low for the cost of living around here. Would like locks on the garage doors. Likes the house. Not sturdy construction, but it's ok. Manager is too abrasive, doesn't seem to like dealing with customers' complaints.
20. Military E-7. Complaint about lack of security-break-ins of cars. Shoddy construction of the houses. Received a threatening letter from manager about consequences of late rent payments.
21. Military E-4. Spouse is pregnant, so she can't work. BAH is so low they need a roommate to afford the rent! Feels safe with so many military people around. "You know and can trust your neighbors."
22. Military E-6. Good day care opportunities for little kids. House is a "great place." Paying the utilities "stinks." Manager closes too early for sailors who get home after 1700. Opening the office an hour later and closing an hour later would be extremely helpful.
23. Spouse of E-5. It's a "nice house, but out of pocket expenses hurt." Hard for spouses to find decent jobs, only fast food and convenience store opportunities. Former GS worker, but nothing at Everett and Bremerton is too far away.
24. Spouse of E-5. "It would help to have out of pocket expenses gone. We would have less stress, more money to pay off bills, etc."

25. Military E-6. "Local manager is an idiot! He's nice until you sign up, then he doesn't do anything!" Tenants have gotten "huge surprise bills after checkout." Rent increases "need to be tied to BAH increases, not the CPI."

LIST OF REFERENCES

Desbrow, Sandra M., *PUBLIC/PRIVATE VENTURES: An Analysis of the Policies, Statutes, and Regulations Governing Business Partnerships/Agreements between the Federal Government and Private Companies, Local governments, or State Governments Involving the Exchange of U.S. Government Properties (Real Estate) and/or Services for Moneys and/or Services*, paper presented at the Naval Postgraduate School, Monterey, California, June 1998.

Herzberg, Frederick, Mausner, Bernard, and Snyderman, Barbara Bloch, *The Motivaton to Work*, John Wiley & Sons, Inc., October 1962.

Herzberg, Frederick, "One More Time: How Do You Motivate Employees?" *Managing People and Organizations*, Harvard Business School Publications, 1992.

Interview between K. Buike, Captain, USN, Naval Station Everett, WA, and the author, 28 April 1999.

Interview between B. Carpenter, Engineering Field Activity Northwest, and the author, 28 April 1999.

Kerr, Steven, "On the Folly of Rewarding A, While Hoping for B," *Academy of Management Journal*, Volume 18, Number 4, December 1975.

Maslow, Abraham H. *Motivation and Personality*, Harper & Row, Publishers, 1970.

Military Family Housing in the United States, A CBO Study, Congress of the United States, Congressional Budget Office, September 1993.

Szilagyi, Jr., Andrew D., and Wallace, Jr., Marc J., *Organizational Behavior and Performance*, Scott, Forsman and Company, 1983.

U. S. General Accounting Office Report to the Secretary of Defense, *MILITARY HOUSING Privatization Off to a Slow Start and Continued Management Attention Needed*, United States General Accounting Office, July 1998.

Van Oss, Henry P., *An Econonmic Analysis of the Alternatives for Providing Military Family Housing at NPS Monterey, California*, Master's Thesis, Naval Postgraduate School, Monterey, California, December 1990.

Vroom, Victor H., *Work and Motivation*, John Wiley & Sons, Inc., 1964.

Wick, Gary L., *An Analysis of the Effects of Military Housing Allowances and other Military Related Factors on Private Sector Rental Housing Prices*, Master's Thesis, Naval Postgraduate School, Monterey, California, December, 1996.

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center2
8725 John J. Kingman Road, Ste 0944
Fort Belvoir, VA 22060-6218

2. Dudley Knox Library2
Naval Postgraduate School
411 Dyer Road
Monterey, California 93943-5101

3. Professor Cary Simon, Code SM/SN.....1
Naval Postgraduate School
Monterey, CA 93943

4. Radm Donald R. Eaton (Ret) SM/ET..... 1
Naval Postgraduate School
Monterey, CA 93943

5. CAPT Kim S. Buike.....1
2000 W. Marine View Drive
Building 2000
Everett, WA 98207-5001

6. Ms Josephine I. Nghe.....1
13912 45th Ave N.E.
Marysville, WA 98271

7. EMCM(SS/AW) Steven R. Hillis.....1
CINCPACVFLT Code N008
250 Makalapa Drive
Pearl Harbor, HI 96860-7000

8. Ms Patricia Kotzen.....1
CINCPACFLT Code N46A
250 Makalapa Drive
Pearl Harbor, HI 96860

9. Mr David A. Falls1
CINCPACFLT Code N469
250 Makalapa Drive
Pearl Harbor, HI 96860

10.	CDR Christopher J. Bielik	2
	COMNAVRESFOR Code N461	
	4400 Dauphine Street	
	New Orleans, LA 70146-5000	